# Trends in Birth Outcomes and Maternal Characteristics in Indiana

## Statistics from the Live Birth Data

1990-2005

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# **Executive Summary**

This report (*Trends in Birth Outcomes and Maternal Characteristics in Indiana: Statistics from the Live Birth Data 1990-2005*) presents detailed statistics on Indiana births according to a variety of characteristics from 1990 to 2005 as reported on the birth certificates. Data are presented on maternal demographic characteristics (including age, education, live-birth order, and marital status), medical services utilization by pregnant women (including prenatal care, cesarean delivery, and induction of labor), and maternal smoking during pregnancy, as well as on selected infant characteristics (birth weight, gestational age, and multiple births). This report also includes trends in low birth weight and preterm birth according to the selected maternal characteristics throughout the 1990-2005 period. These data are presented for all births (all races combined) and for whites, blacks, non-Hispanic whites, non-Hispanic blacks, and Hispanics.

Between 1990 and 2005, multiple birth rate, cesarean delivery rate, and rate of induction of labor increased significantly. Compared to non-Hispanic whites, non-Hispanic blacks had slightly higher multiple birth rates, similar cesarean delivery rates and notably lower rates of induction of labor in 2005. Hispanic women had considerably lower multiple birth rate, similar cesarean delivery rate, and lower rates of induction of labor compared to non-Hispanics.

The increase in key measures of birth outcome, the percentage of preterm and low birth weight (LBW) births, may partly be explained by increases in rates of multiple birth, cesarean delivery, and induction of labor. However, it is important to note that preterm birth rates have also risen among singleton deliveries and among births not delivered by cesarean section. The increase in preterm delivery among singletons during these years was mainly due to an increase in late preterm births (34-36 weeks of gestation).

The wide racial disparity in LBW and preterm birth present in 1990 continues to exist but to a lesser extent in recent years. This gradual narrowing of racial gap between 1990 and 2005, particularly in preterm birth, is mainly due to a significant and notable increase in preterm birth rate among non-Hispanic whites (by 45 percent) and no change among non-Hispanic blacks. The LBW and preterm birth rates among Hispanics, however, were similar to non-Hispanic whites.

Teenage mothers (under 20 years of age) and mothers 35 years of age and older were more likely to have LBW or preterm deliveries than mothers in their twenties and early thirties. Between 1990 and 2005, both LBW and preterm birth rates increased significantly and considerably among all age groups for non-Hispanic white mothers but not for non-Hispanic black or Hispanic mothers. During this period, the proportion of births to teenage mothers declined significantly regardless of race and Hispanic origin whereas births to mothers 35 years of age and older increased noticeably among non-Hispanic white and non-Hispanic black mothers.

For both non-Hispanic whites and non-Hispanic blacks, preterm birth and LBW rates decreased as mother's educational level increased. The exception to this trend was among non-Hispanic white women with less than 9 years of education who had similar or lower LBW and preterm birth rates compared to the college graduates. This least educated group of non-Hispanic white mothers, with favorable birth outcomes,

were less likely to have cesarean delivery, induction of labor, and multiple births, and more likely to receive inadequate prenatal care and reside in non-metropolitan counties compared to more educated mothers. Between 1990 and 2005, the proportion of adult mothers with inadequate education (less than 12 years) remained unchanged among non-Hispanic whites, increased moderately among non-Hispanic blacks and more than doubled among Hispanics.

Low birth weight and Preterm births were lower among married compared to unmarried mothers. However, during the past several years, preterm births increased to a greater extent among the married mothers. Proportion of unmarried mothers was markedly higher among non-Hispanic blacks and Hispanics but increased markedly among non-Hispanic whites and Hispanics over the years.

Women who smoked during pregnancy had notably higher LBW rates and somewhat higher preterm births. The increase in LBW rates observed over the years, however, was more evident among the non-smokers than smokers. The prevalence of smoking during pregnancy declined significantly regardless of race and Hispanic origin but is remarkably lower among Hispanics compared to non-Hispanics and higher among non-Hispanic whites compared to non-Hispanic blacks.

Mothers who received inadequate prenatal care had considerably higher LBW and preterm births than mothers who received adequate or intermediate care regardless of race and Hispanic origin. Between 1990 and 2005, the proportion of mothers who received late or inadequate prenatal care decreased modestly among non-Hispanics but increased significantly among Hispanics.

The wide racial and ethnic disparity in the proportion of birth to teenage mothers, mothers with inadequate education, unmarried mothers, and mothers who received late or inadequate prenatal care continues to exist.

## **Highlights**

- Between 1990 and 2005, births increased for Hispanic women from 2.2 to 9.2 percent, were essentially unchanged for non-Hispanic black women, and declined from 85.6 to 77.3 percent for non-Hispanic white women.
   (Table 1, Figures 1-2)
- In 1990, of 1,915 live births for Hispanic women, 27.2 percent were to women who were born outside the U.S. whereas in 2005, 72.1 percent of all Hispanic live births (8,026) were to foreign born mothers.
   (Figure 3)
- Multiple births rose significantly (by 45 percent) from 2.4 percent in 1990 to 3.5 percent in 2005, a trend similar to the national average during this period. Multiple birth rates were higher among non-Hispanic whites and non-Hispanic blacks and increased similarly and significantly among them in contrast to lower rates and negligible increases over time among Hispanics.
   (Table 2, Figures 4-5)
- Multiple birth rates increased with mother's age. In the 2003-2005 period, multiple births rates ranged from 1.7 percent for mothers under 20 years of age to 5.3 percent for those 35 years of age and older. The increase in multiple birth rates over time was evident in all age groups but was present to a greater degree among mothers who were older and those with higher level of education than among the younger and less educated mothers.
   (Figures 6-7)
- Total Cesarean delivery rate decreased from 21.9 percent in 1990 to 19.8 percent in 1997 followed by a sharp increase to 28.3 percent in 2005. The upward trend in cesarean delivery rates after late 1990's is evident among both non-Hispanics and Hispanics and is comparable to the national trend. (Tables 2, 5-7, Figures 8, 11)
- In 2005, cesarean delivery rate was 70.1 percent among multiple births compared to 26.8 percent among singletons; the rates increased among both groups (by 27-31 percent) since 1990.
   (Figure 12)
- Among singleton births, cesarean delivery rates were higher among older mothers and more educated mothers compared to those who were younger and less educated. Cesarean delivery rates, however, have risen among women in all age and educational groups since late 1990's.
   (Figures 13-14)

Cesarean delivery rates among singletons increased as gestational age decreased. In 2005, cesarean rates ranged from 22.1 percent among births at 40 or higher weeks of gestation to 45.3 percent among the very preterm (less than 32 weeks) births. Cesarean delivery rates increased across all gestational ages in recent years, especially after 1997. Between 1998 and 2005, the rates increased by 36 percent among the very preterm, by 44 percent among the late preterm (34-36 weeks) and by 32 percent among those born at 40 or higher weeks of gestation.

(Figure 15)

- The rate of **induction of labor** increased consistently and sharply from 9.3 percent in 1990 to 26.4 percent in 2005. (Figure 16)
- Induction rates continued to be considerably higher among non-Hispanic whites (28.8 percent in 2005) compared to non-Hispanic blacks (19.4 percent) and Hispanics (15.8 percent). (Figure 17)
- Proportion of live births to teenage women (under 20 years of age) declined by 24 percent between 1990 and 2003 and remained essentially unchanged at 11.0 percent afterwards. (Table 2, Figure 19)
- Between mid 1990's and early 2000's, births to teenage women declined significantly among both Hispanics and non-Hispanics. The proportion of birth to teenagers in 2005 was almost double among non-Hispanic blacks (19.0 percent) and 36 percent higher among Hispanics (13.3 percent) compared to non-Hispanic whites (9.7 percent), a pattern that has persisted over the years. (Tables 5-7, Figures 20-21)
- Between 1990 and 2005, percentage of births to mothers in their twenties changed slightly whereas births to women in their early thirties increased by 13 percent (to 20.4 percent) and that to older mothers increased by 63 percent (to 10.4 percent). The sharp increase in proportion of births to mothers 35 years of age or older was evident among both non-Hispanic whites and non-Hispanic blacks but not among Hispanics. (Tables 2, 5-7, Figures 19, 22)
- In 2005, 14.6 percent of non-Hispanic white mothers had less than adequate education (2.8 percent under 20 years of age and 11.7 percent older) compared to 20.2 percent of non-Hispanic blacks and 52.7 percent of Hispanics. Among non-Hispanic black teenagers, however, 20.9 percent had inadequate education compared to 29.2 percent among non-Hispanic white and 45.5 percent among Hispanic teenagers.

(Tables 5-7, Figures 23-24)

- Between 1990 and 2005, the proportion of adult mothers with inadequate education (less than 12 years) did not change among non-Hispanic whites (11.7 percent in 2005), increased by 30 percent among non-Hispanic blacks (to 16.2 percent), and increased by 123 percent among Hispanics (to 46.6 percent). (Tables 5-8, Figure 25)
- During the period of 1990 to 2005, percentage of mothers with 16 or more years of education increased by 71 percent among non-Hispanic whites (to 27.9 percent in 2005) and by 83 percent among non-Hispanic blacks (to 9.7 percent) whereas it declined by 29 percent among Hispanics (to 6.7 percent). The wide racial and ethnic disparity in college educated mothers persisted over the years.

(Tables 5-7, Figure 26)

- Between 1990 and 2005, percentage of fourth- or higher-order births increased significantly among both Hispanics and non-Hispanics. In 2005, fourth- or higher-order births were 69 percent higher among non-Hispanic blacks (18.6 percent) and 48 percent higher among Hispanics (16.3 percent) compared to non-Hispanic whites (11.0 percent).
   (Tables 5-8, Figure 27)
- In 2005, the proportion of births to **unmarried mothers** was 40.2 percent, up by 53 percent since 1990. During this period, births to unmarried mothers increased by 67 percent among non-Hispanic whites (to 33.5 percent), by 5 percent among non-Hispanic blacks (to 77.7 percent), and by 63.6 percent among Hispanics (to 54.5 percent). (Tables 5-8, Figure 28-29)
- Between 1990 and 2005, the percentage of women who began prenatal care in the first trimester of pregnancy increased by only 2 percent (to 80.4 percent) in Indiana. During this period, early initiation of care increased by 4 percent among non-Hispanic white mothers (to 84.2 percent) and by 9 percent among non-Hispanic black mothers (to 67.0 percent), in contrast to 8 percent decrease (to 64.1 percent) among Hispanics. The wide racial disparity in timely initiation of care, however, persisted over these years and grew even wider between Hispanics and non-Hispanic whites.
  (Tables 5-9, Figures 30-31)
- In 2005, 24.7 percent of Hispanic women received inadequate or no care (based on Kotelchuck index) compared to 23.3 percent of non-Hispanic blacks and 10.2 percent of non-Hispanic whites. While the proportion of mothers receiving inadequate or no care decreased by 13 percent among non-Hispanic whites and by 23 percent among non-Hispanic blacks since 1990, among Hispanics it increased by 14 percent. (Tables 5-8, Figures 32-33)

- Smoking during pregnancy declined to 17.9 percent in 2005, slightly lower than the rate in 2004 (18.1 percent) and 33 percent lower than that in 1990 (26.7 percent). The gradual decline in smoking rates observed since 1990 leveled off among non-Hispanic whites after 2002 while it continued to decline among non-Hispanic blacks and Hispanics. In 2005, prenatal smoking rate among non-Hispanic white women was 20.5 percent compared to 14.0 percent among non-Hispanic blacks and 3.3 percent among Hispanics. (Tables 2, 5-8, Figure 34)
- The **low birth weight** (LBW, less than 2,500 grams) rate increased to 8.3 percent in 2005, up from 7.4 percent in 2000 and 6.6 percent in 1990. Between 1990 and 2005, low birth weight rate increased significantly by 34 percent for non-Hispanic whites and by 8 percent for non-Hispanic blacks; the 14 percent increase in LBW rate among Hispanics was not statistically significant. (Tables 2, 5-8, Figures 35-36, 38)
- In 2005, the LBW rate for non-Hispanic blacks was 13.4 percent compared to 7.8 percent for non-Hispanic whites and 6.6 percent for Hispanics. Compared to non-Hispanic whites, the LBW rate of non-Hispanic blacks was 115 percent higher in 1990 and 73 percent higher in 2005. The narrowing of racial disparity in LBW rate between 1990 and 2005, however, is not due to an improvement of LBW rate among non-Hispanic blacks but mainly due to a noticeable increase in LBW rate among non-Hispanic whites. (Tables 5-9, Figure 38)
- Between 1990 and 2005, increases were observed for both very low birth weight (VLBW, less than 1,500 grams) and moderately low birth weight (MLBW, 1,500-2,499 grams) infants. During this period, VLBW rates increased significantly among both non-Hispanic whites (by 37 percent) and non-Hispanic blacks (by 19 percent), whereas MLBW rates increased significantly among non-Hispanic whites (by 33 percent) but not among non-Hispanic blacks. (Tables 2, 5-8, Figure 39-40)
- In 2005, the VLBW rate among non-Hispanic blacks was 3.3 percent compared to 1.3 percent among non-Hispanic whites and 1.2 percent among Hispanics. Racial disparity continues to exist in both VLBW and MLBW rates but is present to a greater degree for the VLBW infants. (Tables 8-9)
- In the 2003-2005 period, the LBW rate was 59.1 percent for multiple births and 6.2 percent for singleton births, up by 13-14 percent among both groups since 1990-1992.
   (Table 10, Figure 41)
- Between 1990-1992 and 2003-2005, LBW rate for singleton births rose significantly (by 17 percent) among non-Hispanic whites but not among non-Hispanic blacks or Hispanics. (Tables 13-15)

- There was a wide racial disparity in LBW rates among singletons but not among multiple births. In the 2003-2005 period, singleton LBW among non-Hispanic blacks (11.4 percent) was more than double the rate of non-Hispanic whites (5.6 percent), whereas multiple LBW was only 14 percent higher among non-Hispanic blacks compared to non-Hispanic whites. (Tables 13-15)
- During the 1990 to 2005 period, LBW rates increased significantly among mothers in all age groups except those younger than 18 years of age. The youngest and the oldest mothers were more likely to deliver LBW infants than others. For 2003-2005, the lowest LBW levels were reported for women aged 25-29 years of age; the highest LBW rates were for those less than 18 years of age followed by women 35 years of age and older.
   (Table 10, Figure 42)
- In the period of 2003-2005, the LBW rate for non-Hispanic black teenagers was 14.0 percent, more than 50 percent higher than the rate for non-Hispanic whites (9.1 percent) and more than double the rate for Hispanic teenagers (6.6 percent). The racial disparity in LBW grew even wider among adult mothers. Between 1990-1992 and 2003-2005, LBW rates of non-Hispanic whites increased significantly (by 22-31 percent) for all age groups except those under 18 years of age, in contrast to a 7-14 percent increase in rates among non-Hispanic black mothers between 18 and 24 years of age and no significant increase in any age groups among Hispanics.

  (Tables 13-15, Figures 43-44)
- Between 1990-1992 and 2003-2005, LBW decreased significantly among mothers with less than 9 years of education and increased significantly among mothers with 9 or more years of education. Mothers with 16 or more years of education had the lowest LBW rates but the sharpest increase in rates (by 44 percent) over time.

(Table 10, Figure 45)

- Among non-Hispanic mothers, LBW rates decreased as mother's education increased to 12 years or more, whereas among Hispanics LBW increased as mother's years of education increased. (Tables 13-15, Figure 46)
- Hispanic mothers with less than 12 years of education were at a considerable advantage for LBW rates compared to their non-Hispanic counterparts. Non-Hispanic black mothers had higher LBW rates at all levels of maternal education and the racial disparity became wider at higher educational levels. (Tables 13-15, Figures 47-48)

- Between 1990-1992 and 2003-2005 LBW rates among mothers with more than 12 years of education increased significantly by 43 percent for non-Hispanic whites compared to a 12 percent increase among non-Hispanic blacks. (Tables 13-15, Figure 49)
- Higher LBW rates among unmarried mothers compared to married mothers were noticeable for both non-Hispanic white and non-Hispanic black but not for Hispanic mothers. Between 1990-1992 and 2003-2005, LBW rates among married mothers increased significantly for non-Hispanic whites (by 30 percent) but not among non-Hispanic blacks and Hispanics. In contrast, LBW rates among unmarried mothers increased by 8 percent among non-Hispanics and decreased slightly among Hispanics.
   (Tables 13-15, Figures 51-52)
- In 2003-2005, the LBW rate of infants born to mothers who smoked during pregnancy was 11.7 percent, more than 60 percent higher than the rate among non-smokers (7.2 percent). The higher LBW rates among smokers compared to non-smokers existed regardless of race and Hispanic origin. (Tables 10-15, Figure 55)
- Between 1990-1992 and 2003-2005, the LBW rates among smokers increased significantly for non-Hispanic whites but not for non-Hispanic blacks and Hispanics. The LBW rates among non-smokers increased significantly by 43 percent for non-Hispanic whites, by 18 percent for non-Hispanic blacks, and by 15 percent for Hispanics. (Tables 13-15, Figure 56)
- The **preterm birth rate** in Indiana rose another 3 percent in 2005, to 13.7 percent of all births compared to 12.7 percent nationwide. The percentage of infants born preterm (less than 37 completed weeks of gestation) has risen 34 percent since 1990 (from 10.2 percent) compared to 20 percent increase in rates at the national level for the same time period. The preterm birth in Indiana, therefore, is rising at a faster rate than the average nationwide. (Table 2, Figure 57)
- Between 1990 and 2005, the proportion of all infants born very preterm (less than 32 completed weeks of gestation) rose by 24 percent (from 1.8 to 2.2 percent) and those born late preterm (34-36 weeks) rose by 48 percent (from 6.9 to 9.8 percent).
   (Table 2)
- Between 1990 and 2005, preterm rates rose significantly by 45 percent for non-Hispanic whites (to 13.0 percent for 2005) and by 16 percent for Hispanics (to 13.4 percent) but remained essentially unchanged among non-Hispanic blacks (18.9 percent in 2005).
   (Tables 5-8, Figure 59)

- Between 1990-1992 and 2003-2005 preterm rates increased significantly by 42 percent among infants delivered by cesarean section compared to 18 percent increase among those not delivered by cesarean.
   (Table 16, Figure 62)
- The youngest (under 20 years of age) and oldest (35 years and older) mothers were more likely to have preterm delivery than other age groups, regardless of race and Hispanic origin.
   (Tables 16, 19-21, Figure 64)
- Between the two periods of 1990-1992 and 2003-2005, preterm birth increased by 25 percent among mothers in their early twenties and by 39-43 percent among mothers in their late twenties and early thirties. Preterm births among mothers in their early thirties increased significantly by 51 percent for non-Hispanic whites (to 13.0 percent in 2003-2005) and by 12 percent for non-Hispanic blacks (to 20.3 percent) in contrast to no significant change for Hispanics (to 12.4 percent).
   (Tables 16, 19-21, Figure 65)
- Preterm birth rates decreased as maternal education increased to 12 or more years for both non-Hispanic whites and non-Hispanic blacks. Among Hispanic mothers, however, preterm rates were similar across various educational levels. (Tables 19-21, Figure 67)
- Between 1990-1992 and 2003-2005, preterm birth increased significantly by 48 percent among non-Hispanic whites mothers with 12 or more years of education compared to a 10 percent increase for non-Hispanic blacks and 22 percent increase for Hispanics in the same educational group.
   (Tables 19-21, Figure 69)
- In 2003-2005, preterm rate was 15.4 percent among fourth- or higher-order births compared to 13.5 percent among third-order and 12.2 percent among first and second order births. Since 1990-1992, preterm rates increased to a greater extent for third and fourth- or higher-order births (by 47-49 percent) than for first-order births (by 27 percent). (Table 16, Figure 70)
- Between 1990-1992 and 2003-2005, preterm rates among married mothers increased by 43 percent for non-Hispanic whites (to 12.1 percent in 2003-2005) and by 17 percent for non-Hispanic blacks (to 17.9 percent) but did not change significantly for Hispanics. In contrast, preterm rates among unmarried mothers increased by 16 percent among non-Hispanic whites and remained essentially unchanged among non-Hispanic blacks and Hispanics.
   (Tables 19-21, Figure 72)

- In 2003-2005, preterm birth rates among non-Hispanic and Hispanics were higher by 17-18 percent among mothers who smoked compared to non-smokers. Preterm rates increased significantly since the early 1990's for non-Hispanic white smokers (by 31 percent) but not for non-Hispanic black or Hispanic smokers. Preterm rates for mothers who did not smoke during pregnancy increased to a considerable extent among non-Hispanic whites (by 43 percent) but not among non-Hispanic blacks or Hispanics. (Table 19-21, Figure 75)
- Diminishing racial disparities in preterm rates in recent years compared to early 1990's in general and across various demographic subgroups is mainly due to an increase in preterm birth rates among non-Hispanic white mothers and not due to decreasing preterm birth rates among non-Hispanic blacks. (Table 19, 20, 22)

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#### Introduction

This report (*Trends in Birth Outcomes and Maternal Characteristics in Indiana: Statistics from the Live Birth Data 1990-2005*) presents detailed statistics on Indiana births according to a variety of characteristics from 1990 to 2005 as reported on the birth certificates. Data are presented on maternal demographic characteristics (including age, education, live-birth order, and marital status), medical services utilization by pregnant women (including prenatal care, cesarean delivery, and induction of labor), and maternal smoking during pregnancy, as well as on selected infant characteristics (birth weigh, gestational age, and multiple births). This report also includes trends in low birth weigh and preterm birth according to the selected maternal characteristics throughout the 1990-2005 period. These data are presented for all births (all races combined) and for whites, blacks, non-Hispanic whites, non-Hispanic blacks, and Hispanics. Continuous monitoring of low birth weight and preterm births is important in understanding the patterns and changes among various population subgroups because these outcomes are significant predictors of infant mortality and morbidity.

#### Methods

Data presented in this report were obtained from the birth certificates for all infants born between 1990 and 2005 to mothers who were Indiana residents. The detailed information on maternal and infant characteristics presented in this report is based on the 1989 revision of the U.S. Standard Certificate of Live. This study looks at trends in low birth weight, preterm birth, and a variety of delivery and maternal characteristics over time by race and Hispanic origin of mother and examines the correlates of low birth weight and preterm births including multiple births, cesarean delivery, maternal demographic characteristics (age, education, marital status, live-birth order), prenatal care utilization, and tobacco use during pregnancy across population subgroups.

Yearly statistics on maternal and infant characteristics are reported at the state level for all races combined and for whites, blacks, non-Hispanic whites, non-Hispanic blacks, and Hispanics separately. Data for Hispanic mothers are not further classified by race as the vast majority of women of Hispanic origin are reported as white. To obtain statistically reliable prevalence for low birth weight and preterm births according to the characteristics of interest by race and Hispanic origin of mother, three year moving averages are reported through out the 1990 to 2005 period. In this report, the U.S. Office of Management and Budget race definition of "Black or African American" is referred to as "Black" and ethnicity definition of "Hispanic or Latino" is referred to as "Hispanic".

In computation of percentages (also referred to as prevalence or rate) and percent distributions, births for which a particular characteristic is unknown were subtracted from the figures for total births that were used as denominators before percentages and percent distributions were computed except for data related to prenatal care where the unknown category was included.

The statistical analysis was performed for comparing the prevalence of adverse birth outcomes and selected maternal and delivery characteristics between 1990 and 2005 and for comparing the prevalence of low birth weight and preterm birth by various characteristics of mother and delivery between 1990-1992 and 2003-2005. Text statements pointing to a higher or lower prevalence, percentage, or rate in one period compared to another indicates that the change or the difference in rates is statistically significant, unless otherwise specified. In certain instances, such as among Hispanics in specific subgroups, the change may not be statistically significant despite a noticeable difference in rates, mainly due to the small number of births in those categories.

Information on the methods used for computation of percentages and rates, on statistical significance, random variation, and stability of rates, and on education of mother and adequacy of prenatal care are presented in the "Technical Notes". The yearly numbers of all live births by selected characteristics and the yearly numbers of low birth weight and preterm births by selected variables are presented in Appendices A, B, and C, respectively.

#### Results

#### Race and Hispanic origin of mother

Of all live births in 2005 (n=87,088), 77.3 percent were to non-Hispanic white mothers, followed by 11.2 percent for non-Hispanic black and 9.2 percent for Hispanic mothers. Between 1990 and 2005, proportion of births to Hispanic women more than quadrupled, whereas it declined by almost 10 percent for non-Hispanic whites and remained essentially unchanged for non-Hispanic black women (Table 1, Figures 1-2). The sharp increase in proportion of births to Hispanic women coincides with a noticeable increase in proportion of Hispanic mothers born outside the United States from 27 percent in 1990 to 72 in 2005 (Figure 3).

#### Multiple births

Multiple birth rate rose by 45 percent from 2.4 percent in 1990 to 3.5 percent in 2005. Multiple birth rates were higher among non-Hispanic whites and non-Hispanic blacks and increased similarly and significantly among them in contrast to lower rates and negligible increases over time among Hispanics (Table 2, Figures 4-5).

Multiple birth rates increased with mother's age. In the 2003-2005 period, multiple births rates ranged from 1.7 percent for mothers under 20 years of age to 5.3 percent for those 35 years of age and older. Multiple birth rates have risen for women in all age groups but the largest growth has been among older mothers. For example, among mothers under 20 years of age the multiple birth rate increased by 17 percent between 1990-1992 and 2003-2005, compared with a 33 percent increase among women in their twenties and 46 percent increase for those in their thirties or older (Figure 6).

In recent years, higher multiple birth rate is evident among older mothers with higher level of educational compared to those with less education which is in contrast to fairly similar rates among these groups in early 1990's. For example in 2003-2005, multiple birth rate of women 30 years of age and older was 5.2 percent for those with more than 12 years of education compared to 3.1 percent for those with less than 12 years of education (Figure 7).

The rise in multiple birth rate in recent years has been associated with a trend in both older age at childbearing and the increasing use of fertility therapies (1-5). Between 1990 and 2005 in Indiana, the proportion of births to mothers 35 years of age and older increased by 65 percent and proportion of adult mothers with more than 12 years of education increased by 36 percent. The rising proportion of older and more educated mothers, especially among non-Hispanic whites, who are more likely to seek fertility treatments may partly explain the increasing overall multiple birth rates.

Multiple births are almost ten times more likely to be low birth weight or preterm (Tables 10 and 16). In 2003, the mortality rate for infants born in multiple deliveries was more than four times higher than that for singletons (6). The increasing

number of multiple births attributable to assisted conception has raised public health concerns regarding multiple gestation-related adverse outcomes. Despite the widespread recognition of this problem, multiple birth rate has continued to increase.

#### Cesarean delivery

Cesarean delivery rate in Indiana decreased from 21.9 percent in 1990 to 19.8 percent in 1997 followed by a steep increase to 28.3 percent in 2005, a trend comparable to the national rates during this period (Table 2, Figure 8). The continuous escalation in total delivery rate after 1997 is driven by both the increase in primary cesarean rate and the decrease in the rates of vaginal birth after cesarean delivery (VBAC) (Figure 9). Among women with previous cesarean delivery, subsequent deliveries can either be a repeat cesarean or a VBAC. The sharp decline in the rates of VBAC after 1997 implies a corresponding rise in the rate of repeat cesarean deliveries. Between 1997 and 2005, the repeat cesarean rate increased from 72.4 to 93.4 percent (Figure 10), indicating that once a woman has a cesarean delivery, there is more than 90 percent chance that subsequent deliveries will be by cesarean. The increase in primary cesarean deliveries may be associated with nonclinical factors such as demographics, physician practice patterns, and maternal choice (7-9), whereas the steep decline in the VBAC rate may be related to concerns for reported risks associated with VBAC, more conservative practice guidelines, legal pressures, and continued debate regarding the risks and benefits of vaginal birth compared with cesarean delivery (9-12).

The upward trend in cesarean rates in recent years in Indiana is evident among both non-Hispanic and Hispanic mothers and for singleton as well as for multiple births (Tables 2, 5-7, Figures 11-12). Among singleton births, cesarean delivery rates were higher among older mothers and more educated mothers compared to those who were younger and less educated. Cesarean delivery rates, however, have risen among women in all age and educational groups since the late 1990's (Figures 13-14).

Cesarean delivery rates among singletons increased as gestational age decreased. In 2005, total cesarean rate among singletons born at less than 32 weeks of gestation was 45 percent, more than double the rate of 22 percent among those born at 40 and higher weeks of gestation. Cesarean delivery rates, however, increased across all gestational ages in recent years. Between 1998 and 2005, the rates increased by 36 percent among the very preterm (less than 32 weeks), by 44 percent among the late preterm (34-36 weeks) and by 32 percent among the full term births (Figure 15).

#### Induction of labor

The rate of induction of labor increased consistently and sharply from 9.3 percent in 1990 to 26.4 percent in 2005. Compared to the national rates of induction since 1990, the rates in Indiana have risen to a greater extent and the gap has widened with time (Figure 16). Between 1990 and 2005, induction levels more than tripled among non-Hispanic blacks, increased by almost three fold among non-

Hispanic whites and more than doubled among Hispanics. Induction rates continued to be considerably higher among non-Hispanic whites (28.8 percent in 2005) compared to non-Hispanic blacks (19.4 percent) and Hispanics (15.8 percent) (Figure 17).

Between 1990 and 2005, the rate of induction have risen by more than 93 percent among the very preterm (<32 weeks) deliveries (from 3.6 to 7.0 percent), by 168 percent among late preterm (34-36 weeks) deliveries (from 6.9 to 18.5 percent), and by more than 200 percent among term (37-41 weeks) deliveries (from 8.7 to 28.0 percent) (Figure 18). Induction, whether for a medical indication or elective, has been shown to increase the risk of cesarean delivery in nulliparous women and among those with a prior cesarean delivery (13-15). Increasing induction rates has been suggested to be partly related to an increase in elective inductions (16).

#### Age of mother

Proportion of **live births to teenage women** (under 20 years of age) declined by 24 percent from 14.6 percent in 1990 to 11.0 percent in 2003 and remained unchanged afterwards (Table 2, Figures 19). Between mid 1990's and early 2000's, births to teenage women declined significantly among both Hispanics and non-Hispanics. The proportion of birth to teenagers in 2005 was almost double among non-Hispanic blacks (19.0 percent) and 36 percent higher among Hispanics (13.3 percent) compared to non-Hispanic whites (9.7 percent), a pattern that has persisted over the years (Tables 5-7, Figures 20-21)

Between 1990 and 2005, percentage of births to mothers in their twenties changed slightly whereas births to women in their early thirties increased by 13 percent (to 20.4 percent) and that to mothers 35 year of age and older increased by 63 percent (to 10.4 percent). The sharp increase in proportion of **births to mothers 35 years of age or older** was evident among both non-Hispanic whites and non-Hispanic blacks but not among Hispanics (Tables 2, 5-7, Figures 19, 22).

#### **Education of mother**

In 2005, 18.6 percent of all live births in Indiana were to mothers with inadequate education for their age, up from 16.3 percent in 1990. Among non-Hispanic white mothers in 2005, 14.6 percent had less than adequate education compared to 20.2 percent of non-Hispanic blacks and 52.7 percent of Hispanics. Among non-Hispanic black teenagers, however, 20.9 percent had inadequate education compared to 29.2 percent among non-Hispanic white and 45.5 percent among Hispanic teenagers (Tables 2, 5-8, Figures 23-24).

Between 1990 and 2005, the proportion of adult mothers with inadequate education (less than 12 years) did not change among non-Hispanic whites (11.7 percent in 2005), increased by 30 percent among non-Hispanic blacks (to 16.2 percent), and increased by 123 percent among Hispanics (to 46.6 percent) (Tables 5-7, Figure 25). In contrast, the percentage of mothers with 16 or more years of education increased by 71 percent among non-Hispanic whites (to 27.9 percent in

2005) and by 83 percent among non-Hispanic blacks (to 9.7 percent) whereas it declined by 29 percent among Hispanics (to 6.7 percent) (Tables 5-7, Figure 26).

#### Live-birth order

In 2005, the first-birth order comprised 38.3 percent of all live births and fourth-or higher-order birth comprised 12.3 percent compared to 41.1 and 9.1 percents in 1990, respectively. Between 1990 and 2005, percentage of fourth- or higher-order births increased significantly among both Hispanics and non-Hispanics. In 2005, fourth- or higher-order births were 69 percent higher among non-Hispanic blacks (18.6 percent) and 48 percent higher among Hispanics (16.3 percent) compared to non-Hispanic whites (11.0 percent) (Tables 2, 5-8, Figure 27).

#### Births to unmarried mothers

In 2005, the proportion of births to unmarried mothers was 40.2 percent, up by 53 percent since 1990 (Table 2). During this time period, birth to unmarried women increased to a greater extent in Indiana compared to the national average (Figure 28). The proportion of births to unmarried mothers varied widely by race and Hispanic origin. In 2005, births to unmarried mothers was highest for non-Hispanic blacks (77.7 percent), followed by Hispanics (54.5 percent), and non-Hispanic white women (33.5). Between 1990 and 2005, births to unmarried mothers in have risen by 67 percent among non-Hispanic whites, by 5 percent among non-Hispanic blacks, and by 63.6 percent among Hispanics (Tables 5-8, Figure 29).

#### Prenatal care

Timely initiation of prenatal care does not seem to have improved in Indiana during the last several years. Between 1990 and 2005, the percentage of women who began prenatal care in the first trimester of pregnancy increased by only 2 percent (to 80.4 percent). During this period, early initiation of care increased by 4 percent among non-Hispanic white mothers (to 84.2 percent) and by 9 percent among non-Hispanic black mothers (to 67.0 percent), in contrast to 8 percent decrease (to 64.1 percent) among Hispanics. The wide racial disparity in timely initiation of care, however, persisted over these years and grew even wider between Hispanics and non-Hispanic whites. In 2005, 15.8 percent of non-Hispanic white mothers received late or no prenatal care compared to 33.0 percent of non-Hispanic blacks and 35.9 percent of Hispanics (Tables 5-9, Figures 30-31).

The Adequacy of Prenatal Care Utilization (APNCU) Index (or Kotelchuck Index) is an alternative measure of prenatal timing and adequacy that takes into account not only the initiation of prenatal care but also the number of prenatal visits and gestational age at delivery (17-18). According to this index, the proportion of women who have received less than adequate care in Indiana was 26.6 percent in 2005, showing no improvement since 1995 (Table 2).

In 2005, 24.7 percent of Hispanic women received inadequate or no care (based on Kotelchuck index) compared to 23.3 percent of non-Hispanic blacks and 10.2

percent of non-Hispanic whites. While the proportion of mothers receiving inadequate or no care decreased by 13 percent among non-Hispanic whites and by 23 percent among non-Hispanic blacks since 1990, among Hispanics it increased by 14 percent (Tables 5-8, Figures 32-33).

#### Smoking during pregnancy

Smoking during pregnancy declined to 17.9 percent in 2005, slightly lower than the rate in 2004 (18.1 percent) and 33 percent lower than that in 1990 (26.7 percent) (Table 2). The gradual declined in smoking rates observed since 1990 leveled off among non-Hispanic whites after 2002 while it continued to decline among non-Hispanic blacks and Hispanics. In 2005, prenatal smoking rate among non-Hispanic white women was 20.5 percent compared to 14.0 percent among non-Hispanic blacks and 3.3 percent among Hispanics (Tables 5-8, Figure 34).

#### Low birth weight

The low birth weight (LBW, less than 2,500 grams) rate in Indiana increased to 8.3 percent in 2005, up from 7.4 percent in 2000 and 6.6 percent in 1990. Compared to the national average, low birth weight rates in Indiana have been slightly lower in early 1990's but almost the same in recent years (Table 2, Figure 35). Between 1990 and 2005, low birth weight rates increased significantly by 27.1 percent for all births, by 34 percent for non-Hispanic whites and by 8 percent for non-Hispanic blacks; the 14 percent increase in LBW rate among Hispanics was not statistically significant (Tables 5-8, Figures 36-37)

In 2005, the LBW rate for non-Hispanic blacks was 13.4 percent compared to 7.8 percent for non-Hispanic whites and 6.6 percent for Hispanics. Compared to non-Hispanic whites, the LBW rate of non-Hispanic blacks was 115 percent higher in 1990 and 73 percent higher in 2005. The narrowing of racial disparity in LBW rate between 1990 and 2005, however, is not due to an improvement of LBW rate among non-Hispanic blacks but mainly due to a noticeable increase in LBW rate among non-Hispanic whites (Tables 5-9, Figure 38).

Between 1990 and 2005, increases were observed for both very low birth weight (VLBW, less than 1,500 grams) and moderately low birth weight (MLBW, 1,500-2,499 grams) infants. During this period, VLBW rates increased significantly among both non-Hispanic whites (by 37 percent) and non-Hispanic blacks (by 19 percent), whereas MLBW rates increased significantly among non-Hispanic whites (by 33 percent) but not among non-Hispanic blacks (Tables 2, 5-8, Figure 36-37, 39-40). In 2005, the VLBW rate among non-Hispanic blacks was 3.3 percent compared to 1.3 percent among non-Hispanic whites and 1.2 percent among Hispanics. Racial disparity continues to exist in both VLBW and MLBW rates but is present to a greater degree for the VLBW infants (Tables 8-9).

**Low birth weight and plurality.** In the 2003-2005 period, the LBW rate was 59.1 percent for multiple births and 6.2 percent for singleton births, up by 13-14

percent among both since 1990-1992. For singletons, the LBW rate was 5.5 percent in 1990-1992 and reached a peak of 6.4 percent in 1996-1998 (Table 10, Figure 41).

Between 1990-1992 and 2003-2005, singleton LBW rose significantly (by 17 percent) among non-Hispanic whites but not among non-Hispanic blacks and Hispanics (Tables 13-15). There was a wide racial disparity in LBW rates among singletons but not among multiple births. In the 2003-2005 period, singleton LBW among non-Hispanic blacks (11.4 percent) was more than double the rate of non-Hispanic whites (5.6 percent), whereas multiple LBW was only 14 percent higher among non-Hispanic blacks compared to non-Hispanic whites (Tables 13-15).

Low birth weight and age of mother. During the 1990 to 2005 period, LBW rates increased significantly among mothers in all age groups except those younger than 18 years of age. The youngest and the oldest mothers are most likely to deliver LBW infants. For 2003-2005, the lowest LBW levels were reported for women aged 25-29 years of age; the highest LBW rates were for those less than 18 years of age followed by women 35 years of age and older (Table 10, Figure 42).

In the period of 2003-2005, the LBW rate for non-Hispanic black teenagers was 14.0 percent, more than 50 percent higher than the rate for non-Hispanic whites (9.1 percent), and more than double the rate for Hispanic teenagers (6.6 percent). The racial disparity in LBW grew wider among adult mothers. Between 1990-1992 and 2003-2005, LBW rates of non-Hispanic whites increased significantly (by 22-31 percent) for all age groups except those under 18 years of age, in contrast to a 7-14 percent increase in rates among non-Hispanic black mothers between 18 and 24 years of age and no significant increase in any age groups among Hispanics (Tables 13-15, Figures 43-44).

Low birth weight and education of mother. Between 1990-1992 and 2003-2005, LBW decreased significantly among mothers with less than 9 years of education and increased significantly among mothers with 9 or more years of education. Mothers with 16 or more years of education had the lowest LBW rates but the sharpest increase in rates (by 44 percent) over time (Table 10, Figure 45). Among non-Hispanic mothers, LBW rates decreased as mother's education increased to 12 years or more, whereas among Hispanics LBW increased as mother's years of education increased (Tables 13-15, Figure 46).

Hispanic mothers with less than 12 years of education were at a considerable advantage for LBW rates compared to their non-Hispanic counterparts. Non-Hispanic black mothers had higher LBW rates at all levels of maternal education and the racial disparity became wider at higher educational levels (Tables 13-15, Figures 47-48). Between 1990-1992 and 2003-2005 LBW rates increased significantly by 43 percent among non-Hispanic whites with more than 12 years of education compared to a 12 percent increase among non-Hispanic blacks (Tables 13-15, Figure 49).

Low birth weight and live-birth order. LBW rates were highest among fourth- or higher-order births, followed by first-order births, regardless of race and Hispanic origin of mother (Table 10, Figure 50).

Low birth weight and marital status of mother. Higher LBW rates among unmarried mothers compared to married mothers were noticeable for both non-

Hispanic white and non-Hispanic black but not for Hispanic mothers. Between 1990-1992 and 2003-2005, LBW rates among married mothers increased significantly for non-Hispanic whites (by 30 percent) but not among non-Hispanic blacks and Hispanics. In contrast, LBW rates among unmarried mothers increased by 8 percent among non-Hispanics and decreased slightly among Hispanics (Tables 13-15, Figures 51-52).

Low birth weight and prenatal care. Low birth weight rates among mothers who received no care, as well as among those whose initiation of care was unknown were at least three times of the low birth weight rate among mothers who received care any time during pregnancy (Tables 10, 13-15, Figure 53). Among mothers who received care, low birth weight rates were lowest for those receiving adequate or intermediate care and highest among those who received intensive (adequate plus) care (Tables 10, 13-15, Figure 54).

Low birth weight and smoking status of mother. In 2003-2005, the LBW rate of infants born to mothers who smoked during pregnancy was 11.7 percent, more than 60 percent higher than the rate among non-smokers (7.2 percent). The higher LBW rates among smokers compared to non-smokers existed regardless of race and Hispanic origin (Tables 13-15, Figure 55). Between 1990-1992 and 2003-2005, the LBW rates among smokers increased significantly for non-Hispanic whites but not for non-Hispanic blacks and Hispanics. The LBW rates among non-smokers increased significantly by 43 percent for non-Hispanic whites, by 18 percent for non-Hispanic blacks, and by 15 percent for Hispanics (Tables 13-15, Figure 56).

#### **Preterm births**

Preterm birth is a leading cause of infant morbidity and mortality and is associated with nearly one-half of all congenital neurological defects and more than two-thirds of infant deaths (19-20).

The preterm birth rate in Indiana rose another 3 percent in 2005, to 13.7 percent of all births compared to 12.7 percent nationwide. The percentage of infants born preterm (less than 37 completed weeks of gestation) has risen 34 percent since 1990 (from 10.2 percent) compared to 20 percent increase in rates at the national level for the same time period. The preterm birth in Indiana, therefore, is rising at a faster rate than the average nationwide (Table 2, Figure 57).

Between 1990 and 2005, the proportion of all infants born very preterm (less than 32 completed weeks of gestation) rose by 24 percent (from 1.8 to 2.2 percent) and those born late preterm (34-36 weeks) rose by 48 percent (from 6.9 to 9.8 percent) (Table 2, Figure 58).

During the period of 1990 to 2005, preterm rates rose significantly by 45 percent for non-Hispanic whites (to 13.0 percent for 2005) and by 16 percent for Hispanics (to 13.4 percent) but remained essentially unchanged among non-Hispanic blacks (18.9 percent in 2005) (Tables 5-8, Figure 59). The significant rise in preterm birth for non-Hispanic whites is seen among both the very preterm (by 34 percent) and moderately preterm births (by 47 percent) (Table 8, Figure 60-61).

Preterm rates between 1990-1992 and 2003-2005 increased significantly by 42 percent among infants delivered by cesarean section compared to 18 percent increase among those not delivered by cesarean (Table 16, Figure 62).

**Preterm birth and plurality.** The rise in the incidence of multiple births, which are considerably more likely than singletons to be born preterm, has an important influence on the increasing preterm rate in recent years. The preterm rate for singletons rose by 23 percent from 9.4 percent in 1990 to 11.6 percent in 2005 compared to a 34 percent increase in preterm rate among multiples from 49.2 to 65.9 percent in 2005 (Table 16).

It is important to note that among singleton births, almost all of the increase in preterm births was among infants delivered at 34-36 weeks, or "late preterm"; a small increase (from 1.53 to 1.71 percent) is seen among singleton very preterm births over this period (Figure 63). The increase in late preterm births observed in Indiana, which is also seen at the national level, is of concern because these newborns comprise more than 70 percent of all preterm births and are at higher risk of adverse outcomes compared to infants delivered at higher gestational ages (21-22). A marked change in the proportion of births born at term and post-term has also been observed in recent years. Births in 2005 are notably more likely to be delivered earlier in term, or at 37-39 weeks of gestation, and less likely to be delivered at 40 weeks and later compared to 1990 (Figure 63). The marked shift toward earlier delivery at all gestational ages suggests changes in the use of delivery management techniques such as induction of labor and cesarean delivery (23-25).

**Preterm birth and age of mother.** The youngest and oldest mothers were more likely to have preterm delivery regardless of race and Hispanic origin (Tables 16, 19-21, Figure 64). Between the two period of 1990-1992 and 2003-2005, preterm birth increased by 25 percent among mothers in their early twenties and by 39-43 percent among mothers in their late twenties and early thirties. Preterm births among mothers in their early thirties increased significantly by 51 percent for non-Hispanic whites (to 13.0 percent in 2003-2005) and by 12 percent for non-Hispanic blacks (to 20.3 percent) in contrast to no significant change for Hispanics (to 12.4 percent) (Tables 19-21, Figure 65).

**Preterm birth and education of mother.** Preterm birth rates decreased as maternal education increased from 9-11 years to 12 or more years for both non-Hispanic whites and non-Hispanic blacks. Among Hispanic mothers, however, preterm rates were similar across various educational levels (Tables 19-21, Figure 66-67).

Preterm birth rate among non-Hispanic white mothers with less than 9 years of education (10.4 percent in 2003-2005) was the lowest compared to mothers with higher level of education and even than those with 12 or more years of education (Figure 67). Non-Hispanic white mothers with less than 9 years of education were considerably less likely to have cesarean delivery, induction of labor (Figure 68), and multiple births and more likely to be residing in rural (non-metropolitan) counties and receiving inadequate care compared to mothers with higher levels of education.

Between 1990-1992 and 2003-2005, preterm birth increased significantly by 48 percent among non-Hispanic whites mothers with 12 or more years of education

compared to a 10 percent increase for non-Hispanic blacks and 22 percent increase for Hispanics in the same educational group (Tables 19-21, Figure 69).

**Preterm birth and live-birth order.** In 2003-2005, preterm rate was 15.4 percent among fourth- or higher-order births compared to 13.5 percent among third-order and 12.2 percent among first and second order births. Since 1990-1992, preterm rates increased to a greater extent for third and fourth- or higher-order births (by 47-49 percent) than for first-order births (by 27 percent) (Table 16, Figure 70).

**Preterm birth and marital status of mother.** Between 1990-1992 and 2003-2005, preterm rates among married mothers increased by 43 percent for non-Hispanic whites (to 12.1 percent in 2003-2005) and by 17 percent for non-Hispanic blacks (to 17.9 percent) but did not change significantly for Hispanics. In contrast, preterm rates among unmarried mothers increased by 16 percent among non-Hispanic whites and remained essentially unchanged among non-Hispanic blacks and Hispanics (Tables 19-21, Figure 71-72).

**Preterm birth and prenatal care.** Preterm birth rates among mothers who received no care, as well as among those whose initiation of care was unknown were at least three times of the preterm birth weight rates among mothers who received care any time during pregnancy (Tables 16, 19-21, Figure 73). Among mothers who received care, preterm birth rates were lowest for those receiving adequate or intermediate care and highest among those who received intensive (adequate plus) care (Tables 16, 19-21, Figure 74).

**Preterm birth and smoking status of mother.** In 2003-2005, preterm birth rates among non-Hispanic and Hispanics were higher by 17-18 percent among mothers who smoked compared to non-smokers. Preterm rates increased significantly since the early 1990's for non-Hispanic white smokers (by 31 percent) but not for non-Hispanic black or Hispanic smokers. Preterm rates for mothers who did not smoke during pregnancy increased to a considerable extent among non-Hispanic whites (by 43 percent) but not among non-Hispanic blacks or Hispanics (Table 19-21, Figure 75).

Diminishing racial disparities in preterm rates in recent years compared to early 1990's in general and across various demographic subgroups is mainly due to an increase in preterm birth rates among non-Hispanic white mothers and not due to decreasing preterm birth rates among non-Hispanic blacks. The causes and best management of preterm labor are still not fully understood (20, 26-27).

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Table 1. Percent distribution of live births by race and Hispanic origin of mother: Indiana, 1990-2005

Race and Hispanic origin	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
All	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Race																
White	87.7	87.8	87.7	87.6	87.8	88.0	87.9	88.0	87.4	87.5	87.5	87.2	87.2	87.3	86.9	86.7
Black	11.0	11.1	11.2	11.1	10.8	10.6	10.5	10.5	10.8	10.8	10.7	11.1	10.9	10.8	11.0	11.3
Other	1.1	0.9	1.0	1.0	1.1	1.2	1.4	1.4	1.5	1.6	1.6	1.7	1.8	1.8	2.0	2.0
Unknown race	0.3	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Hispanic Origin, Race																
Hispanic, total	2.2	2.1	2.3	2.5	2.8	3.0	3.5	4.1	4.4	5.1	6.2	6.8	7.2	7.8	8.3	9.2
Non-Hispanic, white	85.6	85.7	85.4	84.8	84.7	85.0	83.4	83.1	82.0	81.9	81.2	80.0	79.7	79.3	78.3	77.3
Non-Hispanic, black	10.9	11.0	11.1	11.1	10.8	10.5	10.4	10.4	10.8	10.8	10.7	11.0	10.8	10.7	10.9	11.2
Non-Hispanic, other races	0.9	0.9	0.9	1.0	1.1	1.1	1.3	1.3	1.4	1.4	1.5	1.6	1.7	1.7	2.0	1.9
Unknown origin and/or race	0.4	0.3	0.2	0.5	0.6	0.3	1.4	1.1	1.4	0.8	0.4	0.5	0.5	0.5	0.4	0.4

Table 2. Percent disribution of live births by selected characteristics of infant and mother among all races: Indiana, 1990-2005

Characteristics	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
All	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Plurality																
Single births	97.6	97.6	97.6	97.5	97.5	97.3	97.4	97.3	97.0	96.7	96.9	96.8	96.5	96.6	96.6	96.5
Multiple births	2.4	2.4	2.4	2.5	2.5	2.7	2.6	2.7	3.0	3.3	3.1	3.2	3.5	3.4	3.4	3.5
Method of delivery																
Cesarean	21.9	21.6	21.7	21.4	21.3	20.8	20.5	19.8	20.1	20.7	21.9	23.6	25.2	25.9	27.4	28.3
Not cesarean	78.1	78.4	78.3	78.6	78.7	79.2	79.5	80.2	79.9	79.3	78.1	76.4	74.8	74.1	72.6	71.7
Birth weight (grams)																
<2,500	6.6	6.7	6.7	7.0	6.8	7.5	7.6	7.7	7.9	7.8	7.4	7.6	7.6	7.9	8.1	8.3
<1,500	1.1	1.2	1.2	1.3	1.2	1.3	1.4	1.3	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.5
1,500-2,499	5.4	5.5	5.5	5.7	5.6	6.2	6.2	6.4	6.5	6.4	6.0	6.2	6.2	6.5	6.7	6.8
>=2,500	93.4	93.3	93.3	93.0	93.2	92.5	92.4	92.3	92.1	92.2	92.6	92.4	92.4	92.1	91.9	91.7
Gestational age (weeks)																
<37	10.2	10.4	10.6	11.0	10.9	11.0	11.0	11.3	11.8	12.1	12.1	12.5	12.8	13.2	13.4	13.7
<32	1.8	1.9	1.9	2.0	1.8	1.9	2.0	2.0	1.9	2.1	1.9	2.0	2.0	2.1	2.1	2.2
32-36	8.5	8.6	8.7	8.9	9.0	9.1	9.0	9.3	9.8	10.0	10.2	10.5	10.8	11.1	11.3	11.5
>=37	89.8	89.6	89.4	89.0	89.1	89.0	89.0	88.7	88.2	87.9	87.9	87.5	87.2	86.8	86.6	86.3
Age of mother (years)																
<20	14.6	14.4	14.1	14.1	14.5	14.7	14.5	14.1	13.8	13.2	12.5	11.9	11.4	11.0	11.0	11.0
<18	5.0	5.0	5.1	5.1	5.4	5.5	5.3	5.2	4.6	4.3	4.0	3.7	3.6	3.4	3.3	3.3
18-19	9.5	9.4	9.0	9.1	9.1	9.2	9.2	8.9	9.2	8.9	8.5	8.2	7.8	7.6	7.7	7.7
>=20	85.4	85.6	85.9	85.9	85.5	85.3	85.5	85.9	86.2	86.8	87.5	88.1	88.6	89.0	89.0	89.0
20-24	29.4	29.8	30.0	29.6	29.2	28.3	27.9	27.8	28.2	28.4	29.0	29.0	29.2	29.0	28.7	28.3
25-29	31.5	30.3	29.8	29.1	28.0	28.2	28.4	28.9	29.1	29.1	28.6	28.5	28.4	28.8	29.0	29.6
30-34	18.1	18.7	19.0	19.5	20.3	20.2	20.2	19.9	19.5	19.7	19.8	20.7	20.8	21.1	20.9	20.4
>=35	6.4	6.8	7.1	7.6	8.1	8.6	9.1	9.3	9.4	9.7	10.1	10.0	10.2	10.2	10.4	10.4
Age / Education (years)																
<20 / <appropriate< td=""><td>4.3</td><td>4.2</td><td>4.0</td><td>3.7</td><td>3.7</td><td>3.7</td><td>3.8</td><td>3.9</td><td>3.9</td><td>3.7</td><td>3.6</td><td>3.5</td><td>3.5</td><td>3.2</td><td>3.2</td><td>3.2</td></appropriate<>	4.3	4.2	4.0	3.7	3.7	3.7	3.8	3.9	3.9	3.7	3.6	3.5	3.5	3.2	3.2	3.2
<20 / appropriate	10.2	10.2	10.1	10.4	10.8	11.0	10.6	10.2	9.9	9.5	8.9	8.3	7.9	7.7	7.8	7.8
>=20 / <12	12.0	12.1	11.9	11.7	11.1	11.0	11.2	11.5	12.1	12.5	13.3	13.8	14.2	14.7	14.7	15.4
>=20 / 12	39.4	38.6	37.6	36.6	35.1	33.4	32.4	32.0	31.1	31.0	30.3	29.7	29.1	27.9	28.0	27.3
>=20 / >12	34.1	34.9	36.4	37.6	39.3	40.9	42.0	42.5	43.0	43.4	43.9	44.7	45.3	46.5	46.3	46.3

Table 2. Percent disribution of live births by selected characteristics of infant and mother among all races: Indiana, 1990-2005--Con.

Characteristics	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Education (years)																
<12	21.2	21.3	20.9	20.5	20.1	20.2	20.2	20.4	20.5	20.5	20.8	20.9	21.2	21.3	21.3	22.0
0-8	3.2	3.4	3.5	3.4	3.5	3.7	3.7	3.8	4.0	4.1	4.6	4.8	5.1	5.3	5.2	5.6
9-11	18.1	17.9	17.5	17.1	16.6	16.5	16.6	16.6	16.5	16.4	16.1	16.2	16.1	16.0	16.1	16.4
=12	44.2	43.2	42.1	41.3	40.0	38.2	37.1	36.5	35.8	35.4	34.6	33.7	32.8	31.5	31.8	31.0
>12	34.6	35.5	36.9	38.2	39.9	41.6	42.7	43.1	43.7	44.1	44.6	45.4	45.9	47.1	46.9	47.0
13-15	19.4	19.9	20.6	20.9	21.5	22.3	22.7	22.5	22.8	22.6	22.5	22.9	22.7	23.2	22.7	22.7
>=16	15.2	15.6	16.3	17.3	18.5	19.3	19.9	20.7	21.0	21.5	22.1	22.5	23.3	24.0	24.2	24.3
Live-birth order																
First	41.1	41.0	40.6	40.8	41.3	41.8	40.9	40.3	39.4	38.6	38.8	38.5	37.9	38.3	38.6	38.3
Second	33.3	33.1	33.4	33.2	32.9	32.7	32.8	32.6	32.9	33.2	32.4	32.6	32.7	32.0	31.8	31.6
Third	16.5	16.5	16.6	16.7	16.3	16.0	16.7	16.8	17.2	17.5	17.9	17.5	17.9	18.0	17.8	17.8
Fourth+	9.1	9.4	9.4	9.3	9.5	9.5	9.6	10.2	10.5	10.7	11.0	11.4	11.5	11.7	11.8	12.3
Marital status																
Married	73.8	71.6	70.5	69.2	68.5	68.0	67.7	67.4	66.4	65.4	65.4	64.4	63.4	62.9	61.2	59.8
Unmarried	26.2	28.4	29.5	30.8	31.5	32.0	32.3	32.6	33.6	34.6	34.6	35.6	36.6	37.1	38.8	40.2
Prenatal care began																
First trimester	78.9	78.0	79.2	79.9	80.6	80.9	80.4	80.1	79.9	80.6	80.8	80.2	81.5	81.7	80.5	80.4
After first trimester	19.9	20.6	19.9	19.2	18.5	18.2	18.7	19.0	19.2	18.6	18.5	19.1	17.8	17.7	18.7	18.9
Second trimester	16.7	17.4	17.0	16.4	15.7	15.6	15.9	16.0	16.1	15.7	15.5	16.0	15.1	14.7	15.3	15.8
Third trimester	3.2	3.2	2.9	2.8	2.7	2.6	2.9	3.0	3.1	3.0	3.0	3.0	2.7	3.1	3.4	3.1
No care	1.2	1.4	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.8	0.7	8.0	0.7	0.6	0.8	0.7
Prenatal care index <sup>1</sup>																
Adequate plus	22.7	21.9	22.6	23.4	24.4	25.9	27.1	28.9	31.2	31.0	30.8	31.0	31.8	31.8	31.0	32.4
Adequate	46.1	46.3	47.0	47.3	48.1	47.5	46.5	45.3	43.5	44.2	43.7	43.2	43.6	42.9	42.4	41.0
Intermediate	17.3	17.6	17.5	16.6	15.4	14.6	13.8	13.1	12.4	12.4	12.9	13.0	12.5	13.2	13.6	13.6
Inadequate	12.8	12.9	12.0	11.7	11.2	11.0	11.7	11.9	12.0	11.7	11.8	12.1	11.4	11.5	12.3	12.3
No care	1.2	1.4	0.9	0.9	1.0	0.9	0.9	0.9	0.9	8.0	8.0	8.0	0.7	0.6	8.0	0.7
Maternal smoking																
Smoking	26.7	25.5	24.7	23.8	22.9	22.2	21.2	21.4	21.3	20.9	20.3	20.2	19.1	18.5	18.1	17.9
Not smoking	73.3	74.5	75.3	76.2	77.1	77.8	78.8	78.6	78.7	79.1	79.7	79.8	80.9	81.5	81.9	82.1

<sup>&</sup>lt;sup>1</sup>Based on APNCU index (Kotelchuck, M., Am J Public Health 1994;84:1414-1420).

Table 3. Percent distribution of live births by selected characteristics of infant and mother among whites: Indiana, 1990-2005

Characteristics	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
All	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Plurality																
Single births	97.6	97.5	97.7	97.5	97.6	97.4	97.4	97.3	97.1	96.7	97.0	96.8	96.6	96.6	96.5	96.6
Multiple births	2.4	2.5	2.3	2.5	2.4	2.6	2.6	2.7	2.9	3.3	3.0	3.2	3.4	3.4	3.5	3.4
Method of delivery																
Cesarean	22.0	21.8	21.6	21.4	21.2	20.8	20.4	19.8	20.2	20.7	21.8	23.5	25.1	25.9	27.2	28.1
Not cesarean	78.0	78.2	78.4	78.6	78.8	79.2	79.6	80.2	79.8	79.3	78.2	76.5	74.9	74.1	72.8	71.9
Birth weight (grams)																
<2,500	5.8	5.9	6.0	6.2	6.2	6.8	6.9	7.0	7.2	7.2	6.7	6.9	6.9	7.2	7.4	7.6
<1,500	1.0	1.0	0.9	1.2	1.1	1.1	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.3
1,500-2,499	4.9	4.9	5.0	5.1	5.1	5.7	5.7	5.9	6.0	5.9	5.5	5.7	5.7	6.0	6.2	6.4
>=2,500	94.2	94.1	94.0	93.8	93.8	93.2	93.1	93.0	92.8	92.8	93.3	93.1	93.1	92.8	92.6	92.4
Gestational age (weeks)																
<37	9.1	9.4	9.5	10.0	10.0	10.2	10.1	10.4	11.0	11.3	11.3	11.9	12.1	12.5	12.7	13.1
<32	1.4	1.5	1.5	1.7	1.5	1.6	1.7	1.7	1.7	1.8	1.7	1.8	1.8	1.8	1.9	1.9
32-36	7.6	7.8	8.0	8.3	8.5	8.6	8.4	8.8	9.3	9.5	9.7	10.1	10.3	10.7	10.9	11.2
>=37	90.9	90.6	90.5	90.0	90.0	89.8	89.9	89.6	89.0	88.7	88.7	88.1	87.9	87.5	87.3	86.9
Age of mother (years)																
<20	13.0	12.8	12.4	12.6	13.0	13.3	13.0	12.8	12.4	12.0	11.5	10.8	10.5	10.0	10.1	10.1
<18	4.1	4.1	4.2	4.1	4.5	4.7	4.5	4.5	3.9	3.7	3.5	3.2	3.1	3.0	2.8	2.9
18-19	8.9	8.7	8.2	8.4	8.5	8.6	8.6	8.4	8.5	8.3	8.0	7.7	7.4	7.0	7.3	7.3
>=20	87.0	87.2	87.6	87.4	87.0	86.7	87.0	87.2	87.6	88.0	88.5	89.2	89.5	90.0	89.9	89.9
20-24	29.0	29.3	29.5	29.2	28.7	27.8	27.3	27.1	27.5	27.7	28.3	28.2	28.4	28.3	28.1	27.9
25-29	32.7	31.4	31.0	30.2	28.9	29.2	29.3	29.8	29.9	29.8	29.3	29.1	29.0	29.4	29.7	30.2
30-34	18.8	19.5	19.8	20.2	21.1	20.9	21.0	20.7	20.4	20.5	20.6	21.6	21.6	21.8	21.5	21.1
>=35	6.5	7.0	7.3	7.9	8.3	8.8	9.3	9.6	9.7	10.0	10.4	10.2	10.5	10.4	10.7	10.6
Age / Education (years)																
<20 / <appropriate< td=""><td>4.3</td><td>4.1</td><td>3.8</td><td>3.6</td><td>3.6</td><td>3.6</td><td>3.7</td><td>3.8</td><td>3.8</td><td>3.6</td><td>3.5</td><td>3.5</td><td>3.5</td><td>3.1</td><td>3.2</td><td>3.2</td></appropriate<>	4.3	4.1	3.8	3.6	3.6	3.6	3.7	3.8	3.8	3.6	3.5	3.5	3.5	3.1	3.2	3.2
<20 / appropriate	8.7	8.6	8.5	9.0	9.4	9.7	9.3	9.0	8.7	8.3	7.9	7.4	7.0	6.9	6.8	6.9
>=20 / <12	12.0	12.1	11.9	11.6	10.9	11.0	11.1	11.4	12.0	12.4	13.2	13.8	14.1	14.7	14.7	15.4
>=20 / 12	40.0	39.3	38.3	37.2	35.6	33.8	32.6	32.1	31.2	31.0	30.1	29.4	28.9	27.6	27.6	26.9
>=20 / >12	35.0	35.9	37.5	38.7	40.4	41.9	43.3	43.6	44.3	44.7	45.3	46.0	46.5	47.8	47.6	47.6

Table 3. Percent distribution of live births by selected characteristics of infant and mother among whites: Indiana, 1990-2005--Con.

Characteristics	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Education (years)																
<12	20.2	20.2	19.7	19.3	18.9	19.1	19.1	19.5	19.5	19.6	20.0	20.2	20.5	20.7	20.7	21.5
0-8	3.3	3.5	3.6	3.6	3.6	3.8	3.9	4.1	4.3	4.4	5.0	5.2	5.5	5.8	5.7	6.2
9-11	16.9	16.6	16.1	15.7	15.2	15.3	15.3	15.4	15.2	15.2	15.0	15.0	14.9	14.9	15.0	15.4
=12	44.4	43.5	42.4	41.5	40.1	38.3	37.0	36.3	35.5	35.1	34.1	33.2	32.4	30.9	31.1	30.3
>12	35.5	36.4	38.0	39.2	41.0	42.5	43.9	44.2	45.0	45.4	45.9	46.6	47.1	48.4	48.2	48.2
13-15	19.4	19.8	20.6	20.9	21.4	22.2	22.8	22.5	22.8	22.6	22.5	22.8	22.6	23.1	22.8	22.6
>=16	16.1	16.6	17.4	18.3	19.6	20.4	21.1	21.8	22.3	22.7	23.4	23.9	24.5	25.3	25.4	25.6
Live-birth order																
First	41.4	41.4	40.9	41.2	41.5	41.8	41.0	40.4	39.5	38.8	39.1	38.6	38.1	38.4	38.6	38.5
Second	33.9	33.5	33.9	33.6	33.5	33.3	33.3	33.1	33.4	33.7	32.9	33.1	33.3	32.4	32.3	32.1
Third	16.3	16.3	16.5	16.6	16.2	16.0	16.7	16.8	17.2	17.5	17.7	17.5	17.8	18.0	17.9	17.8
Fourth+	8.4	8.8	8.7	8.7	8.8	9.0	9.1	9.7	9.9	10.0	10.3	10.7	10.8	11.1	11.2	11.6
Marital status																
Married	79.6	77.5	76.4	74.7	74.0	73.2	72.8	72.4	71.6	70.4	70.2	69.1	68.1	67.4	65.6	64.2
Unmarried	20.4	22.5	23.6	25.3	26.0	26.8	27.2	27.6	28.4	29.6	29.8	30.9	31.9	32.6	34.4	35.8
Prenatal care began																
First trimester	81.1	80.4	81.2	81.9	82.5	82.6	82.2	81.8	81.7	82.2	82.3	81.7	82.9	83.1	81.9	82.1
After first trimester	18.1	18.5	18.2	17.5	16.8	16.7	17.1	17.5	17.7	17.1	17.1	17.7	16.6	16.4	17.5	17.4
Second trimester	15.3	15.8	15.5	15.0	14.4	14.3	14.5	14.8	14.9	14.5	14.4	15.0	14.1	13.7	14.3	14.6
Third trimester	2.8	2.7	2.6	2.5	2.4	2.4	2.6	2.7	2.8	2.7	2.7	2.7	2.5	2.8	3.2	2.8
No care	0.9	1.0	0.7	0.7	0.7	0.7	0.7	0.7	0.6	0.6	0.6	0.6	0.5	0.4	0.6	0.5
Prenatal care index																
Adequate plus	22.7	22.0	22.5	23.5	24.4	25.8	27.0	28.9	31.2	31.1	30.9	31.1	31.9	32.0	31.0	32.6
Adequate	47.9	48.3	48.9	49.2	49.9	49.1	48.2	46.8	45.0	45.6	44.9	44.4	45.0	44.1	43.6	42.1
Intermediate	17.4	17.6	17.3	16.3	15.2	14.5	13.7	12.9	12.3	12.3	12.8	12.8	12.3	13.0	13.4	13.6
Inadequate	11.1	11.1	10.6	10.3	9.8	9.9	10.4	10.7	10.8	10.4	10.8	11.1	10.3	10.5	11.4	11.2
No care	0.9	1.1	0.7	0.7	0.7	0.7	0.7	0.7	0.6	0.6	0.6	0.6	0.5	0.4	0.6	0.5
Maternal smoking																
Smoking	27.3	26.3	25.5	24.6	23.8	23.1	22.0	22.4	22.2	21.8	21.1	21.1	19.9	19.2	18.8	18.8
Not smoking	72.7	73.7	74.5	75.4	76.2	76.9	78.0	77.6	77.8	78.2	78.9	78.9	80.1	80.8	81.2	81.2

<sup>&</sup>lt;sup>1</sup>Based on APNCU index (Kotelchuck, M., Am J Public Health 1994;84:1414-1420).

Table 4. Percent distribution of live births by selected characteristics of infant and mother among blacks: Indiana, 1990-2005

Characteristics	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
All	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Plurality																
Single births	97.3	97.7	96.9	97.3	97.2	97.1	97.1	97.0	96.6	96.7	96.6	96.1	96.1	96.5	96.5	96.0
Multiple births	2.7	2.3	3.1	2.7	2.8	2.9	2.9	3.0	3.4	3.3	3.4	3.9	3.9	3.5	3.5	4.0
Method of delivery																
Cesarean	21.3	20.3	22.0	21.8	21.9	20.8	21.2	20.3	20.1	20.7	22.1	24.5	25.8	26.5	28.9	30.1
Not cesarean	78.7	79.7	78.0	78.2	78.1	79.2	78.8	79.7	79.9	79.3	77.9	75.5	74.2	73.5	71.1	69.9
Birth weight (grams)																
<2,500	12.4	12.4	12.4	12.9	12.4	12.9	13.9	13.6	13.5	12.8	12.7	12.9	13.0	13.2	13.6	13.4
<1,500	2.7	2.7	3.0	2.6	2.9	2.6	3.1	2.8	2.9	3.0	2.9	2.9	2.6	3.2	2.9	3.2
1,500-2,499	9.7	9.7	9.4	10.3	9.5	10.3	10.8	10.8	10.6	9.9	9.8	10.0	10.4	10.0	10.7	10.1
>=2,500	87.6	87.6	87.6	87.1	87.6	87.1	86.1	86.4	86.5	87.2	87.3	87.1	87.0	86.8	86.4	86.6
Gestational age (weeks)																
<37	19.1	18.5	18.7	18.6	18.1	18.0	18.6	18.6	18.2	18.3	18.5	18.2	18.4	19.0	18.9	18.9
<32	4.4	4.4	4.8	4.5	4.6	4.4	4.6	4.4	4.1	4.4	3.9	4.3	3.9	4.2	4.2	4.2
32-36	14.7	14.1	14.0	14.1	13.5	13.6	14.1	14.2	14.1	13.9	14.6	14.0	14.5	14.8	14.8	14.7
>=37	80.9	81.5	81.3	81.4	81.9	82.0	81.4	81.4	81.8	81.7	81.5	81.8	81.6	81.0	81.1	81.1
Age of mother (years)																
<20	27.6	28.1	28.2	27.5	27.7	27.1	27.2	25.5	25.6	24.0	22.0	20.6	19.9	19.8	19.7	18.9
<18	12.5	12.7	12.7	12.8	13.0	12.4	12.2	11.4	10.3	9.4	8.3	8.0	7.7	6.9	7.6	6.8
18-19	15.2	15.4	15.5	14.8	14.7	14.7	15.0	14.1	15.3	14.6	13.7	12.7	12.2	12.8	12.1	12.1
>=20	72.4	71.9	71.8	72.5	72.3	72.9	72.8	74.5	74.4	76.0	78.0	79.4	80.1	80.2	80.3	81.1
20-24	33.8	34.4	34.8	34.3	34.7	33.8	33.9	34.3	35.0	35.7	36.4	37.2	37.1	36.4	35.7	36.0
25-29	22.3	21.2	20.2	20.4	20.2	19.5	20.2	21.1	21.7	22.0	23.0	23.2	23.1	23.2	24.1	24.2
30-34	11.8	11.7	11.5	12.5	12.1	12.9	12.1	12.5	11.2	11.6	12.1	11.9	12.9	13.5	13.5	13.8
>=35	4.4	4.7	5.2	5.3	5.4	6.7	6.6	6.6	6.5	6.6	6.6	6.9	7.0	7.2	6.9	7.1
Age / Education (years)																
<20 / <appropriate< td=""><td>4.8</td><td>4.7</td><td>5.3</td><td>4.8</td><td>4.9</td><td>4.7</td><td>5.0</td><td>4.7</td><td>5.4</td><td>4.9</td><td>4.5</td><td>4.2</td><td>4.0</td><td>4.4</td><td>3.8</td><td>4.0</td></appropriate<>	4.8	4.7	5.3	4.8	4.9	4.7	5.0	4.7	5.4	4.9	4.5	4.2	4.0	4.4	3.8	4.0
<20 / appropriate	22.7	23.2	22.9	22.7	22.9	22.3	22.1	20.8	20.2	19.1	17.3	16.4	15.8	15.3	15.9	14.9
>=20 / <12	12.5	12.2	12.5	12.9	12.2	11.7	12.7	12.6	13.3	13.7	14.2	14.8	16.0	15.7	16.2	16.2
>=20 / 12	35.6	34.5	34.0	33.6	32.8	31.3	31.6	31.6	31.6	32.3	33.4	33.0	32.3	31.8	32.3	32.2
>=20 / >12	24.4	25.3	25.4	26.0	27.2	30.0	28.5	30.3	29.5	30.0	30.5	31.5	31.8	32.8	31.7	32.7

Table 4. Percent distribution of live births by selected characteristics of infant and mother among blacks: Indiana, 1990-2005--Con.

Characteristics	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Education (years)																
<12	30.4	30.6	31.5	31.3	30.9	29.8	30.6	29.5	30.0	28.9	27.7	28.0	28.4	28.0	28.4	27.5
0-8	2.2	2.4	2.4	2.1	2.5	23.0	2.2	1.9	2.0	1.9	1.7	1.4	1.8	1.7	1.8	1.6
9-11	28.2	28.3	29.0	29.2	28.4	27.4	28.3	27.6	28.0	27.0	26.0	26.6	26.6	26.3	26.6	25.9
=12	44.0	42.9	42.1	41.4	40.9	39.1	39.7	39.2	39.3	40.1	40.5	39.5	38.3	38.3	38.9	38.7
>12	25.6	26.5	26.4	27.3	28.2	31.1	29.8	31.3	30.7	31.1	31.7	32.5	33.3	33.7	32.7	33.8
13-15	20.2	21.2	21.0	20.8	21.7	23.8	22.4	22.9	23.0	23.1	23.1	23.8	24.0	24.3	23.1	24.0
>=16	5.3	5.3	5.4	6.4	6.6	7.3	7.3	8.4	7.6	8.0	8.6	8.7	9.3	9.4	9.6	9.7
Live-birth order																
First	37.7	37.7	37.8	37.3	38.9	41.1	38.8	38.4	37.4	35.9	34.7	36.2	35.2	35.6	36.4	36.1
Second	29.4	29.8	29.7	30.0	28.2	27.4	29.1	28.3	28.7	29.0	28.5	28.4	27.5	28.1	27.4	26.7
Third	18.0	18.0	17.2	18.2	17.3	16.7	17.3	17.7	18.1	18.8	19.6	18.5	19.4	18.7	18.4	18.6
Fourth+	14.9	14.6	15.3	14.5	15.6	14.7	14.8	15.5	15.9	16.4	17.2	17.0	17.9	17.6	17.7	18.6
Marital status																
Married	26.0	23.9	23.1	23.4	21.7	23.1	22.6	24.0	22.7	23.0	24.1	24.2	23.4	23.7	22.1	22.3
Unmarried	74.0	76.1	76.9	76.6	78.3	76.9	77.4	76.0	77.3	77.0	75.9	75.8	76.6	76.3	77.9	77.7
Prenatal care began																
First trimester	61.2	58.5	63.1	64.1	64.7	67.1	64.7	66.0	65.3	67.3	68.6	68.5	69.8	69.6	68.8	67.0
After first trimester	34.9	37.0	33.9	33.0	32.4	30.3	32.3	31.2	32.0	30.6	29.4	29.5	27.9	28.3	28.9	31.0
Second trimester	28.9	30.0	28.6	27.9	27.0	25.8	26.9	26.2	26.4	25.4	24.2	24.2	23.4	22.8	23.9	25.8
Third trimester	5.9	7.0	5.3	5.1	5.4	4.5	5.4	5.1	5.7	5.2	5.2	5.3	4.6	5.5	5.0	5.2
No care	3.9	4.5	3.0	2.9	2.9	2.6	3.0	2.7	2.7	2.0	2.0	2.1	2.3	2.1	2.4	2.0
Prenatal care index <sup>1</sup>																
Adequate plus	22.5	20.9	22.7	22.8	25.1	27.1	28.6	29.5	30.9	31.3	30.7	30.4	31.6	31.4	31.4	32.0
Adequate	30.5	29.4	31.3	32.1	32.0	32.9	31.1	31.4	30.7	32.2	33.0	32.8	32.6	32.6	32.5	31.3
Intermediate	16.7	17.6	18.8	19.3	16.9	16.0	14.3	14.0	13.4	12.7	13.5	14.1	13.7	14.1	14.3	13.4
Inadequate	26.2	27.5	24.1	22.8	22.9	21.2	22.8	22.2	22.2	21.7	20.7	20.5	19.8	19.7	19.4	21.3
No care	4.1	4.7	3.1	3.0	3.1	2.7	3.2	2.8	2.8	2.1	2.1	2.1	2.4	2.1	2.4	2.1
Maternal smoking																
Smoking	23.1	20.1	19.6	18.7	17.4	16.5	16.5	14.4	16.4	15.8	15.3	15.6	15.2	15.2	14.4	14.0
Not smoking	76.9	79.9	80.4	81.3	82.6	83.5	83.5	85.6	83.6	84.2	84.7	84.4	84.8	84.8	85.6	86.0

<sup>&</sup>lt;sup>1</sup>Based on APNCU index (Kotelchuck, M., Am J Public Health 1994;84:1414-1420).

Table 5. Percent distribution of live births by selected characteristics of infant and mother among non-Hispanic whites: Indiana, 1990-2005

Characteristics	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
All	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Plurality																
Single births	97.6	97.5	97.7	97.5	97.6	97.3	97.4	97.3	97.0	96.7	96.9	96.7	96.4	96.5	96.4	96.5
Multiple births	2.4	2.5	2.3	2.5	2.4	2.7	2.6	2.7	3.0	3.3	3.1	3.3	3.6	3.5	3.6	3.5
Method of delivery																
Cesarean	21.8	21.6	21.5	21.2	21.0	20.6	20.4	19.8	20.2	20.7	21.9	23.6	25.1	25.9	27.4	28.2
Not cesarean	78.2	78.4	78.5	78.8	79.0	79.4	79.6	80.2	79.8	79.3	78.1	76.4	74.9	74.1	72.6	71.8
Birth weight (grams)																
<2,500	5.8	5.9	6.0	6.2	6.2	6.9	6.9	7.0	7.3	7.2	6.8	7.0	7.0	7.3	7.5	7.8
<1,500	0.9	1.0	0.9	1.1	1.1	1.1	1.2	1.1	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.3
1,500-2,499	4.8	4.9	5.0	5.1	5.1	5.7	5.7	5.9	6.1	6.0	5.6	5.8	5.8	6.1	6.3	6.5
>=2,500	94.2	94.1	94.0	93.8	93.8	93.1	93.1	93.0	92.7	92.8	93.2	93.0	93.0	92.7	92.5	92.2
Gestational age (weeks)																
<37	9.0	9.4	9.5	9.9	9.9	10.1	10.1	10.4	10.9	11.3	11.4	11.8	12.0	12.5	12.8	13.0
<32	1.4	1.5	1.5	1.7	1.5	1.6	1.7	1.6	1.6	1.8	1.7	1.7	1.8	1.8	1.8	1.9
32-36	7.6	7.8	8.0	8.2	8.4	8.5	8.4	8.8	9.3	9.5	9.7	10.1	10.3	10.7	10.9	11.1
>=37	91.0	90.6	90.5	90.1	90.1	89.9	89.9	89.6	89.1	88.7	88.6	88.2	88.0	87.5	87.2	87.0
Age of mother (years)																
<20	12.9	12.7	12.2	12.4	12.8	13.1	12.8	12.6	12.2	11.7	11.1	10.5	10.2	9.7	9.6	9.7
<18	4.1	4.0	4.1	4.1	4.4	4.6	4.4	4.3	3.8	3.6	3.3	3.0	3.0	2.8	2.6	2.6
18-19	8.8	8.6	8.1	8.3	8.3	8.5	8.4	8.3	8.4	8.1	7.8	7.5	7.2	6.9	7.1	7.1
>=20	87.1	87.3	87.8	87.6	87.2	86.9	87.2	87.4	87.8	88.3	88.9	89.5	89.8	90.3	90.4	90.3
20-24	28.9	29.2	29.4	29.1	28.5	27.5	27.0	26.8	27.2	27.2	27.6	27.6	27.9	27.8	27.7	27.6
25-29	32.8	31.6	31.1	30.3	29.1	29.3	29.5	30.0	30.1	30.1	29.5	29.2	29.0	29.5	29.7	30.2
30-34	18.9	19.6	19.9	20.3	21.3	21.1	21.3	21.0	20.8	20.8	21.1	22.2	22.1	22.3	22.0	21.5
>=35	6.5	7.0	7.3	7.9	8.4	8.9	9.4	9.7	9.8	10.2	10.6	10.5	10.8	10.7	11.0	10.9
Age / Education (years)																
<20 / <appropriate< td=""><td>4.2</td><td>4.1</td><td>3.8</td><td>3.5</td><td>3.5</td><td>3.5</td><td>3.6</td><td>3.6</td><td>3.6</td><td>3.4</td><td>3.2</td><td>3.1</td><td>3.1</td><td>2.7</td><td>2.9</td><td>2.8</td></appropriate<>	4.2	4.1	3.8	3.5	3.5	3.5	3.6	3.6	3.6	3.4	3.2	3.1	3.1	2.7	2.9	2.8
<20 / appropriate	8.6	8.5	8.4	8.8	9.3	9.7	9.2	9.0	8.6	8.3	7.9	7.4	7.1	6.9	6.8	6.9
>=20 / <12	11.8	11.8	11.5	11.2	10.4	10.3	10.3	10.4	10.9	10.9	11.1	11.2	11.2	11.5	11.4	11.7
>=20 / 12	40.1	39.4	38.5	37.3	35.8	34.1	32.8	32.4	31.4	31.3	30.6	29.9	29.4	28.1	28.1	27.3
>=20 / >12	35.3	36.2	37.8	39.1	41.0	42.5	44.1	44.6	45.5	46.2	47.2	48.4	49.3	50.7	50.9	51.2

Table 5. Percent distribution of live births by selected characteristics of infant and mother among non-Hispanic whites: Indiana, 1990-2005--Con.

Characteristics	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Education (voors)																
Education (years) <12	19.9	19.8	19.2	18.8	18.2	18.3	18.1	18.1	18.0	17.8	17.5	17.2	17.1	17.1	17.0	17.4
0-8	3.1	3.3	3.4	3.3	3.3	3.4	3.3	3.3	3.4	3.3	3.5	3.4	3.5	3.6	3.5	3.7
9-11	16.8	16.5	15.8	15.5	14.9	14.9	3.3 14.8	3.3 14.8	3. <del>4</del> 14.6	14.4	14.0	13.8	13.6	13.5	13.5	13.7
=12	44.5	43.5	42.5	41.6	40.3	38.6	37.2	36.6	35.7	35.4	34.6	33.7	33.0	31.5	31.5	30.7
>12	35.7	36.7	38.3	39.6	41.5	43.2	37.2 44.7	45.3	46.3	46.8	47.9	49.1	49.9	51.4	51.5	51.9
13-15	19.4	19.8	20.6	21.0	21.5	22.3	23.1	22.8	23.2	23.1	23.3	23.7	23.6	24.2	24.0	24.0
>=16	16.3	16.8	17.6	18.6	20.0	20.8	23.1	22.6 22.5	23.2	23.7	23.3	25.7 25.4	26.2	24.2 27.2	24.0 27.5	27.9
>=10	10.3	10.0	17.0	10.0	20.0	20.6	21.7	22.5	23.1	23.7	24.6	25.4	20.2	21.2	27.5	27.9
Live-birth order																
First	41.4	41.5	41.0	41.2	41.5	41.8	41.0	40.5	39.6	38.8	39.2	38.7	38.3	38.7	39.1	39.1
Second	34.0	33.6	34.0	33.7	33.6	33.4	33.4	33.2	33.5	33.9	33.1	33.4	33.5	32.7	32.5	32.3
Third	16.3	16.3	16.5	16.5	16.2	15.9	16.7	16.8	17.1	17.5	17.7	17.5	17.7	17.8	17.6	17.6
Fourth+	8.3	8.6	8.6	8.6	8.6	8.9	9.0	9.5	9.7	9.8	10.1	10.5	10.5	10.7	10.8	11.0
Marital status																
Married	80.0	77.9	76.7	75.1	74.5	73.7	73.3	72.9	72.2	71.3	71.6	70.6	69.7	69.1	67.6	66.5
Unmarried	20.0	22.1	23.3	24.9	25.5	26.3	26.7	27.1	27.8	28.7	28.4	29.4	30.3	30.9	32.4	33.5
Prenatal care began																
First trimester	81.3	80.7	81.6	82.2	82.9	83.1	82.8	82.5	82.5	83.3	83.8	83.7	84.6	84.8	83.9	84.2
After first trimester	17.9	18.3	17.8	17.1	16.4	16.2	16.6	16.8	16.9	16.2	15.7	15.8	15.0	14.8	15.6	15.3
Second trimester	15.1	15.6	15.2	14.7	14.1	13.9	14.2	14.3	14.3	13.8	13.3	13.5	12.9	12.5	12.7	13.0
Third trimester	2.8	2.7	2.5	2.4	2.3	2.3	2.4	2.5	2.6	2.4	2.4	2.3	2.1	2.4	2.8	2.3
No care	0.8	1.0	0.6	0.6	0.7	0.7	0.6	0.6	0.6	0.5	0.5	0.5	0.4	0.4	0.5	0.5
Prenatal care index <sup>1</sup>																
Adequate plus	22.7	22.1	22.5	23.6	24.4	25.9	27.1	29.2	31.5	31.6	31.6	31.9	32.7	32.6	32.0	33.6
Adequate	48.1	48.4	49.2	49.4	50.2	49.5	48.7	47.2	45.5	46.1	45.7	45.4	45.7	44.9	44.4	43.0
Intermediate	17.4	17.6	17.4	16.4	15.2	14.4	13.7	12.8	12.2	12.1	12.6	12.5	11.9	12.8	13.1	13.2
Inadequate	10.9	10.9	10.3	10.0	9.5	9.5	9.9	10.1	10.2	9.6	9.6	9.7	9.2	9.3	10.0	9.7
No care	0.8	1.0	0.6	0.7	0.7	0.7	0.7	0.7	0.6	0.6	0.5	0.5	0.4	0.4	0.5	0.5
Maternal smoking																
Smoking	27.6	26.7	25.9	25.1	24.2	23.6	22.6	23.2	23.0	22.8	22.3	22.4	21.3	20.6	20.4	20.5
Not smoking	72.4	73.3	74.1	74.9	75.8	76.4	77.4	76.8	77.0	77.2	77.7	77.6	78.7	79.4	79.6	79.5

<sup>&</sup>lt;sup>1</sup>Based on APNCU index (Kotelchuck, M., Am J Public Health 1994;84:1414-1420).

Source: Indiana State Department of Health, Maternal and Children's Special Health Care Services

Table 6. Percent distribution of live births by selected characteristics of infant and mother among non-Hispanic blacks: Indiana, 1990-2005

Characteristics	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
All	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Plurality																
Single births	97.3	97.7	96.9	97.3	97.2	97.2	97.1	97.0	96.6	96.7	96.6	96.1	96.1	96.5	96.5	96.0
Multiple births	2.7	2.3	3.1	2.7	2.8	2.8	2.9	3.0	3.4	3.3	3.4	3.9	3.9	3.5	3.5	4.0
Method of delivery																
Cesarean	21.3	20.3	22.0	21.9	21.9	20.7	21.2	20.3	20.1	20.6	22.1	24.5	25.8	26.5	28.8	30.1
Not cesarean	78.7	79.7	78.0	78.1	78.1	79.3	78.8	79.7	79.9	79.4	77.9	75.5	74.2	73.5	71.2	69.9
Birth weight (grams)																
<2,500	12.4	12.4	12.4	12.9	12.4	12.9	14.0	13.6	13.5	12.9	12.7	13.0	13.0	13.3	13.7	13.4
<1,500	2.7	2.7	3.0	2.6	2.9	2.6	3.1	2.8	2.9	3.0	2.9	2.9	2.6	3.2	2.9	3.3
1,500-2,499	9.7	9.7	9.4	10.3	9.5	10.3	10.8	10.8	10.6	9.9	9.8	10.1	10.4	10.1	10.7	10.2
>=2,500	87.6	87.6	87.6	87.1	87.6	87.1	86.0	86.4	86.5	87.1	87.3	87.0	87.0	86.7	86.3	86.6
Gestational age (weeks)																
<37	19.2	18.5	18.7	18.6	18.1	18.0	18.7	18.6	18.2	18.2	18.5	18.2	18.4	19.0	19.0	18.9
<32	4.4	4.4	4.8	4.5	4.6	4.4	4.6	4.4	4.1	4.4	3.9	4.3	3.9	4.3	4.2	4.2
32-36	14.8	14.1	14.0	14.1	13.6	13.6	14.1	14.2	14.1	13.9	14.6	13.9	14.5	14.8	14.8	14.7
>=37	80.8	81.5	81.3	81.4	81.9	82.0	81.3	81.4	81.8	81.8	81.5	81.8	81.6	81.0	81.0	81.1
Age of mother (years)																
<20	27.6	28.0	28.2	27.5	27.7	27.1	27.3	25.5	25.5	24.0	22.0	20.6	19.9	19.8	19.7	19.0
<18	12.4	12.7	12.8	12.8	13.0	12.4	12.3	11.3	10.3	9.4	8.3	8.0	7.7	6.9	7.7	6.8
18-19	15.2	15.4	15.5	14.8	14.7	14.7	15.0	14.2	15.3	14.6	13.7	12.7	12.2	12.8	12.1	12.2
>=20	72.4	72.0	71.8	72.5	72.3	72.9	72.7	74.5	74.5	76.0	78.0	79.4	80.1	80.2	80.3	81.0
20-24	33.9	34.3	34.8	34.3	34.7	33.8	33.8	34.3	35.0	35.7	36.5	37.2	37.1	36.4	35.8	36.0
25-29	22.4	21.2	20.2	20.4	20.2	19.5	20.2	21.1	21.8	22.0	22.9	23.2	23.1	23.2	24.1	24.2
30-34	11.8	11.7	11.5	12.5	12.1	12.9	12.1	12.5	11.2	11.6	12.1	12.0	12.9	13.5	13.5	13.8
>=35	4.4	4.7	5.2	5.3	5.4	6.7	6.6	6.6	6.5	6.6	6.6	6.9	7.0	7.2	7.0	7.0
Age / Education (years)																
<20 / <appropriate< td=""><td>4.8</td><td>4.7</td><td>5.3</td><td>4.8</td><td>4.9</td><td>4.7</td><td>5.1</td><td>4.7</td><td>5.4</td><td>4.9</td><td>4.5</td><td>4.2</td><td>4.0</td><td>4.4</td><td>3.8</td><td>4.0</td></appropriate<>	4.8	4.7	5.3	4.8	4.9	4.7	5.1	4.7	5.4	4.9	4.5	4.2	4.0	4.4	3.8	4.0
<20 / appropriate	22.6	23.2	22.9	22.8	22.9	22.4	22.1	20.8	20.2	19.1	17.3	16.4	15.8	15.3	15.9	14.9
>=20 / <12	12.5	12.2	12.5	12.9	12.1	11.7	12.7	12.6	13.3	13.7	14.2	14.9	16.0	15.7	16.3	16.2
>=20 / 12	35.6	34.5	34.0	33.6	32.9	31.3	31.6	31.6	31.6	32.3	33.5	33.0	32.3	31.8	32.3	32.2
	24.4	25.4	25.3	25.9	27.3	29.9	28.5	30.3	29.5	30.0	30.4	31.5	31.9	32.8	31.7	32.6

Table 6. Percent distribution of live births by selected characteristics of infant and mother among non-Hispanic blacks: Indiana, 1990-2005--Con.

Characteristics	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Education (years)																
<12	30.4	30.6	31.5	31.3	30.9	29.8	30.6	29.5	30.0	28.9	27.7	28.0	28.4	28.0	28.4	27.5
0-8	2.2	2.4	2.4	2.1	2.5	2.4	2.2	1.9	2.0	1.9	1.7	1.4	1.8	1.7	1.8	1.6
9-11	28.2	28.3	29.0	29.2	28.4	27.4	28.3	27.6	28.0	27.0	26.0	26.6	26.6	26.3	26.6	25.9
=12	44.0	42.9	42.1	41.4	40.9	39.1	39.7	39.2	39.3	40.1	40.5	39.5	38.3	38.3	38.9	38.7
>12	25.6	26.5	26.4	27.3	28.2	31.1	29.8	31.3	30.7	31.1	31.7	32.5	33.3	33.7	32.7	33.8
13-15	20.2	21.2	21.0	20.8	21.7	23.8	22.4	22.9	23.0	23.1	23.1	23.8	24.0	24.3	23.1	24.0
>=16	5.3	5.3	5.4	6.4	6.6	7.3	7.3	8.4	7.6	8.0	8.6	8.7	9.3	9.4	9.6	9.7
Live-birth order																
First	37.7	37.7	37.8	37.3	38.9	41.1	38.8	38.4	37.4	35.9	34.7	36.2	35.2	35.6	36.4	36.1
Second	29.4	29.8	29.7	30.0	28.2	27.4	29.1	28.3	28.7	29.0	28.5	28.4	27.5	28.1	27.4	26.7
Third	18.0	18.0	17.2	18.2	17.3	16.7	17.3	17.7	18.1	18.8	19.6	18.5	19.4	18.7	18.4	18.6
Fourth+	14.9	14.6	15.3	14.5	15.6	14.7	14.8	15.5	15.9	16.4	17.2	17.0	17.9	17.6	17.7	18.6
Marital status																
Married	26.0	23.9	23.1	23.4	21.7	23.1	22.6	24.0	22.7	23.0	24.1	24.2	23.4	23.7	22.1	22.3
Unmarried	74.0	76.1	76.9	76.6	78.3	76.9	77.4	76.0	77.3	77.0	75.9	75.8	76.6	76.3	77.9	77.7
Prenatal care began																
First trimester	61.2	58.5	63.1	64.1	64.7	67.1	64.7	66.0	65.3	67.3	68.6	68.5	69.8	69.6	68.8	67.0
After first trimester	34.9	37.0	33.9	33.0	32.4	30.3	32.3	31.2	32.0	30.6	29.4	29.5	27.9	28.3	28.9	31.0
Second trimester	28.9	30.0	28.6	27.9	27.0	25.8	26.9	26.2	26.4	25.4	24.2	24.2	23.4	22.8	23.9	25.8
Third trimester	5.9	7.0	5.3	5.1	5.4	4.5	5.4	5.1	5.7	5.2	5.2	5.3	4.6	5.5	5.0	5.2
No care	3.9	4.5	3.0	2.9	2.9	2.6	3.0	2.7	2.7	2.0	2.0	2.1	2.3	2.1	2.4	2.0
Prenatal care index																
Adequate plus	22.5	20.9	22.7	22.8	25.1	27.1	28.6	29.5	30.9	31.3	30.7	30.4	31.6	31.4	31.4	32.0
Adequate	30.5	29.4	31.3	32.1	32.0	32.9	31.1	31.4	30.7	32.2	33.0	32.8	32.6	32.6	32.5	31.3
Intermediate	16.7	17.6	18.8	19.3	16.9	16.0	14.3	14.0	13.4	12.7	13.5	14.1	13.7	14.1	14.3	13.4
Inadequate	26.2	27.5	24.1	22.8	22.9	21.2	22.8	22.2	22.2	21.7	20.7	20.5	19.8	19.7	19.4	21.3
No care	4.1	4.7	3.1	3.0	3.1	2.7	3.2	2.8	2.8	2.1	2.1	2.1	2.4	2.1	2.4	2.1
Maternal smoking																
Smoking	23.1	20.1	19.6	18.7	17.4	16.5	16.5	14.4	16.4	15.8	15.3	15.6	15.2	15.2	14.4	14.0
Not smoking	76.9	79.9	80.4	81.3	82.6	83.5	83.5	85.6	83.6	84.2	84.7	84.4	84.8	84.8	85.6	86.0

<sup>&</sup>lt;sup>1</sup>Based on APNCU index (Kotelchuck, M., Am J Public Health 1994;84:1414-1420).

Source: Indiana State Department of Health, Maternal and Children's Special Health Care Services

Table 7. Percent distribution of live births by selected characteristics of infant and mother among Hispanics: Indiana, 1990-2005

All	100.0	100.0														
			100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Plurality																
Single births	98.0	98.1	98.0	97.2	98.4	97.6	97.4	97.5	97.7	97.4	98.4	97.9	98.3	97.8	97.8	97.8
Multiple births	2.0	1.9	2.0	2.8	1.6	2.4	2.6	2.5	2.3	2.6	1.6	2.1	1.7	2.2	2.2	2.2
Method of delivery																
Cesarean	27.8	28.6	28.0	26.9	25.5	24.7	21.3	20.1	20.2	19.8	20.4	22.2	24.9	25.8	26.2	27.2
Not cesarean	72.2	71.4	72.0	73.1	74.5	75.3	78.7	79.9	79.8	80.2	79.6	77.8	75.1	74.2	73.8	72.8
Birth weight (grams)																
<2,500	5.8	5.8	6.3	7.3	5.7	6.3	7.1	6.9	7.0	6.5	5.2	6.5	6.3	5.9	6.3	6.6
<1,500	*	1.1	1.1	1.8	1.1	0.9	1.7	1.3	1.2	1.4	1.0	1.4	1.2	0.9	1.3	1.2
1,500-2,499	4.9	4.7	5.2	5.5	4.6	5.4	5.4	5.6	5.7	5.1	4.3	5.1	5.1	5.0	5.1	5.4
>=2,500	94.2	94.2	93.7	92.7	94.3	93.7	92.9	93.1	93.0	93.5	94.8	93.5	93.7	94.1	93.7	93.4
Gestational age (weeks)																
<37	11.5	11.0	12.4	13.2	11.6	11.5	11.4	11.6	11.9	11.8	10.8	12.7	12.4	12.5	12.4	13.4
<32	1.6	1.7	2.2	2.2	2.1	1.6	2.8	2.1	1.8	2.2	1.9	2.3	2.0	1.6	2.1	2.0
32-36	9.9	9.3	10.3	11.0	9.6	9.9	8.6	9.5	10.2	9.6	9.0	10.4	10.4	10.9	10.3	11.4
>=37	88.5	89.0	87.6	86.8	88.4	88.5	88.6	88.4	88.1	88.2	89.2	87.3	87.6	87.5	87.6	86.6
Age of mother (years)																
<20	17.5	18.2	18.9	18.6	20.1	19.8	19.4	18.1	18.3	16.5	15.7	14.3	13.9	13.6	13.7	13.3
<18	6.2	7.7	7.1	7.0	7.9	7.2	7.6	7.3	7.1	5.9	5.1	5.0	4.8	4.9	4.5	4.8
18-19	11.4	10.5	11.8	11.6	12.3	12.6	11.9	10.8	11.2	10.6	10.7	9.2	9.2	8.7	9.1	8.5
>=20	82.5	81.8	81.1	81.4	79.9	80.2	80.6	81.9	81.7	83.5	84.3	85.7	86.1	86.4	86.3	86.7
20-24	29.7	32.4	32.1	32.8	33.5	35.6	34.5	34.5	33.6	35.1	36.7	35.3	34.2	33.4	31.7	30.2
25-29	28.2	25.2	24.2	24.8	23.1	23.8	24.3	26.7	26.4	26.1	26.3	28.7	29.2	28.4	29.6	30.2
30-34	17.3	16.7	16.9	16.8	16.4	13.9	14.6	13.9	14.4	15.4	13.9	14.5	15.4	16.9	16.8	18.0
>=35	7.3	7.5	7.9	7.1	6.8	6.8	7.1	6.8	7.3	6.9	7.4	7.2	7.2	7.7	8.3	8.3
Age / Education (years)																
<20 / <appropriate< td=""><td>6.0</td><td>4.8</td><td>6.7</td><td>5.8</td><td>7.5</td><td>7.3</td><td>7.4</td><td>7.7</td><td>7.9</td><td>7.3</td><td>7.9</td><td>7.4</td><td>7.6</td><td>6.8</td><td>6.4</td><td>6.1</td></appropriate<>	6.0	4.8	6.7	5.8	7.5	7.3	7.4	7.7	7.9	7.3	7.9	7.4	7.6	6.8	6.4	6.1
<20 / appropriate	11.6	13.3	12.2	12.6	12.7	12.6	12.0	10.4	10.6	9.3	7.8	6.9	6.2	6.8	7.1	7.3
>=20 / <12	20.9	23.0	25.3	25.1	25.9	29.7	31.3	33.5	34.0	37.8	42.3	44.4	46.6	46.7	46.7	46.6
>=20 / 12	34.5	34.2	29.3	31.2	28.9	26.1	26.1	25.5	25.6	24.5	22.8	23.2	22.8	21.7	23.0	22.8
>=20 / >12	27.1	24.7	26.5	25.3	24.9	24.4	23.1	22.8	21.9	21.1	19.1	18.1	16.7	18.1	16.8	17.3

Table 7. Percent distribution of live births by selected characteristics of infant and mother among Hispanics: Indiana, 1990-2005--Con.

Characteristics	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Education (years)																
<12	33.1	35.2	38.0	37.8	40.7	43.8	45.7	47.1	47.5	49.8	54.3	55.5	57.5	57.2	56.5	56.4
0-8	10.9	10.9	12.3	13.3	14.8	16.7	18.3	19.8	20.4	22.6	25.4	27.1	27.6	28.2	27.4	27.0
9-11	22.3	24.3	25.7	24.5	26.0	27.1	27.4	27.4	27.1	27.2	28.9	28.4	29.9	29.0	29.1	29.5
=12	39.3	39.6	34.5	35.8	33.6	30.8	30.3	29.4	29.5	28.5	26.0	26.0	25.4	24.3	26.2	25.8
>12	27.6	25.2	27.4	26.4	25.6	25.5	23.9	23.5	23.0	21.7	19.6	18.5	17.1	18.4	17.3	17.7
13-15	18.1	17.4	19.8	18.2	18.1	17.8	15.6	16.7	16.2	14.2	12.6	12.4	10.9	11.9	11.3	11.0
>=16	9.4	7.8	7.6	8.2	7.5	7.7	8.3	6.8	6.8	7.5	7.1	6.2	6.1	6.5	6.0	6.7
Live-birth order																
First	39.7	38.7	38.8	39.7	40.4	42.3	40.5	39.3	37.7	39.2	38.3	37.7	35.4	35.3	33.5	33.0
Second	29.1	29.5	29.9	30.0	30.2	29.5	30.7	29.8	30.8	29.7	29.7	30.1	30.6	29.7	30.5	30.7
Third	18.2	17.1	16.9	17.5	17.1	16.2	16.9	17.4	17.7	17.6	18.6	18.3	19.6	20.2	20.7	20.0
Fourth+	13.0	14.8	14.3	12.8	12.3	12.0	11.9	13.5	13.8	13.6	13.4	14.0	14.4	14.9	15.3	16.3
Marital status																
Married	66.7	63.4	62.5	62.5	58.5	58.2	58.5	59.5	57.7	54.8	52.5	52.1	50.3	49.7	47.2	45.5
Unmarried	33.3	36.6	37.5	37.5	41.5	41.8	41.5	40.5	42.3	45.2	47.5	47.9	49.7	50.3	52.8	54.5
Prenatal care began																
First trimester	69.9	69.9	66.6	69.1	69.9	66.3	66.8	66.5	64.7	64.5	61.9	63.1	65.1	66.1	62.7	64.1
After first trimester	28.4	28.0	32.2	29.3	28.4	31.9	31.9	31.9	33.7	33.9	36.4	35.4	33.8	33.1	36.1	34.9
Second trimester	22.7	22.4	26.5	24.1	23.0	25.7	25.2	25.0	26.9	26.5	28.6	29.1	27.1	26.5	28.6	28.0
Third trimester	5.7	5.6	5.7	5.2	5.3	6.2	6.8	6.9	6.8	7.5	7.9	6.3	6.7	6.5	7.5	6.9
No care	1.8	2.0	1.1	1.6	1.7	1.8	1.3	1.5	1.6	1.6	1.7	1.5	1.2	0.9	1.2	1.0
Prenatal care index <sup>1</sup>																
Adequate plus	20.5	20.4	23.6	22.6	22.0	22.6	20.8	20.7	23.5	22.1	20.7	21.9	23.1	24.6	21.3	24.0
Adequate	40.7	41.6	37.8	39.9	38.9	38.4	37.6	36.9	35.3	36.2	34.6	35.9	36.5	36.2	35.6	34.4
Intermediate	17.1	16.2	15.7	15.1	16.9	15.8	16.0	16.9	15.6	15.4	16.8	16.5	16.2	15.5	16.4	16.9
Inadequate	19.9	19.6	21.8	20.8	20.3	21.2	24.2	23.9	23.9	24.7	26.2	24.2	23.0	22.8	25.5	23.6
No care	1.8	2.1	1.2	1.7	1.8	1.9	1.3	1.6	1.7	1.6	1.7	1.6	1.2	0.9	1.2	1.0
Maternal smoking																
Smoking	13.7	13.1	11.3	10.1	9.6	8.2	7.6	6.3	6.6	5.3	5.1	4.5	4.2	3.8	3.6	3.3
Not smoking	86.3	86.9	88.7	89.9	90.4	91.8	92.4	93.7	93.4	94.7	94.8	95.5	95.8	96.2	96.4	96.7

<sup>&</sup>lt;sup>1</sup>Based on APNCU index (Kotelchuck, M., Am J Public Health 1994;84:1414-1420).

Table 8. Percentage of births with selected characteristics of infant and mother in 1990 and 2005 and percent change over time by race and Hispanic origin of mother: Indiana 1990 and 2005 live births

		All		Non	-Hispanio	white	Non	-Hispanio	c black		Hispani	С
Characteristics	1990	2005	% change	1990	2005	% change	1990	2005	% change	1990	2005	% change
Infant												
Multiple births	2.4	3.5	45 *	2.4	3.5	50 *	2.7	4.0	48 *	2.0	2.2	8
Cesarean delivery	21.9	28.3	30 *	21.8	28.2	29 *	21.3	30.1	41 *	27.8	27.2	-2
Low birth weight	6.6	8.3	27 *	5.8	7.8	34 *	12.4	13.4	8 *	5.8	6.6	14
Very low birth weight	1.1	1.5	31 *	0.9	1.3	37 *	2.7	3.3	19 *		1.2	
Moderately low birth weight	5.4	6.8	26 *	4.8	6.5	33 *	9.7	10.2	5	4.9	5.4	11
Preterm birth	10.2	13.7	34 *	9.0	13.0	45 *	19.2	18.9	-1	11.5	13.4	16 *
Very preterm birth	1.8	2.2	24 *	1.4	1.9	34 *	4.4	4.2	-5	1.6	2.0	24
Moderately preterm birth	8.5	11.5	36 *	7.6	11.1	47 *	14.8	14.7	0	9.9	11.4	14
Mother												
Under 20 years of age	14.6	11.0	-24 *	12.9	9.7	-24 *	27.6	19.0	-31 *	17.5	13.3	-24 *
Less than adequate education	16.3	18.6	14 *	16.0	14.6	-9 *	17.3	20.2	17 *	26.9	52.7	96 *
Fourth- or higher-order births	9.1	12.3	34 *	8.3	11.0	32 *	14.9	18.6	25 *	13.0	16.3	26 *
Unmarried	26.2	40.2	53 *	20.0	33.5	67 *	74.0	77.7	5 *	33.3	54.5	64 *
Smoker	26.7	17.9	-33 *	27.6	20.5	-26 *	23.1	14.0	-39 *	13.7	3.3	-76 *
Late or no prenatal care	21.1	19.6	-7 *	18.7	15.8	-15 *	38.8	33.0	-15 *	30.1	35.9	19 *
Inadequate or no care	14.0	13.0	-7 *	11.8	10.2	-13 *	30.3	23.3	-23 *	21.7	24.7	14 *

<sup>\*</sup>Significant at p<0.05.

Note: Low birth weight is birth weight of less than 2,500 grams; very low birth weight is birth weight of less than 1,500 grams; moderately low birth weight is birth weight of 1,500-2,499 grams; preterm birth is less than 37 completed weeks of gestation; very preterm birth is less than 32 completed weeks of gestation; moderately preterm birth is 32-36 completed weeks of gestation.

Source: Indiana State Department of Health, Maternal and Children's Special Health Care Services

<sup>--</sup>Figure does not meet standard of reliability or precision; based on fewer than 20 births in the numerator.

<sup>...</sup>Category not applicable

Table 9. Relative prevalence of selected maternal and infant characteristics among non-Hispanic blacks and Hispanics compared to non-Hispanic whites: Indiana, 1990 and 2005 live births

ompared to non moparite write	, , , , , , , , , , , , , , , , , , ,	Relative prevalence (95%	6 confidence interval)	
	Non-Hispanic black	to Non-Hispanic white	Hispanic to No	n-Hispnic white
Characteristics	1990	2005	1990	2005
Infant				
Multiple births	1.15 (1.01, 1.31)	1.13 (1.02, 1.26)	0.86 (0.63, 1.18)	0.62 (0.54, 0.73)
Cesarean delivery	0.98 (0.94, 1.02)	1.07 (1.03, 1.10)	1.27 (1.18, 1.37)	0.96 (0.93, 1.00)
Low birth weight	2.15 (2.02, 2.28)	1.73 (1.64, 1.83)	1.00 (0.83, 1.20)	0.85 (0.78, 0.93)
Very low birth eight	2.88 (2.50, 3.32)	2.51 (2.22, 2.85)		0.96 (0.78, 1.17)
Moderately low birth weight	2.22 (1.87, 2.15)	1.58 (1.48, 1.68)	1.00 (0.82, 1.23)	0.83 (0.76, 0.92)
Preterm birth	2.13 (2.03, 2.23)	1.45 (1.39, 1.52)	1.28 (1.13, 1.45)	1.02 (0.97, 1.09)
Very preterm birth	3.09 (2.76, 3.45)	2.19 (1.97, 2.45)	1.14 (0.80, 1.62)	1.05 (0.89, 1.23)
Moderately preterm birth	1.94 (1.84, 2.05)	1.32 (1.26, 1.39)	1.31 (1.14, 1.50)	1.02 (0.96, 1.09)
Mother				
Under 20 years of age	2.14 (2.06, 2.23)	1.94 (1.85, 2.04)	1.36 (1.23, 1.50)	1.36 (1.28, 1.45)
Less than adequate education	1.08 (1.03, 1.14)	1.39 (1.33, 1.45)	1.68 (1.56, 1.82)	3.62 (3.52, 3.72)
Fourth- or higher-order births	1.78 (1.69, 1.88)	1.69 (1.61, 1.77)	1.56 (1.38, 1.75)	1.48 (1.41, 1.57)
Unmarried	3.69 (3.63, 3.76)	2.32 (2.29, 2.36)	1.66 (1.56, 1.77)	1.63 (1.59, 1.66)
Smoker	0.84 (0.81, 0.87)	0.68 (0.65, 0.72)	0.49 (0.44, 0.55)	0.16 (0.14, 0.18)
Late or no prenatal care	2.07 (2.01, 2.14)	2.09 (2.02, 2.16)	1.61 (1.50, 1.73)	2.27 (2.19, 2.35)
Inadequate or no care	2.57 (2.48, 2.67)	2.29 (2.19, 2.39)	1.84 (1.68, 2.01)	2.42 (2.31, 2.53)

<sup>...</sup>Category not applicable

Note: Low birth weight is birth weight of less than 2,500 grams; very low birth weight is birth weight of less than 1,500 grams; moderately low birth weight is birth weight of 1,500-2,499 grams; preterm birth is less than 37 completed weeks of gestation; very preterm birth is less than 32 completed weeks of gestation; moderately preterm birth is 32-36 completed weeks of gestation.

Table 10. Percent low birth weight by selected characteristics of infant and mother among all races, three-year moving averages: Indiana, 1990-2005

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	Percent Change
Characteristics	-1992	-1993	-1994	-1995	-1996	-1997	-1998	-1999	-2000	-2001	-2002	-2003	-2004	-2005	1990-1992 to 2003-2005
All	6.6	6.8	6.8	7.1	7.3	7.6	7.8	7.8	7.7	7.6	7.5	7.7	7.9	8.1	22 *
Plurality															
Single births	5.5	5.6	5.7	5.9	6.0	6.3	6.4	6.3	6.1	6.0	5.9	6.0	6.0	6.2	13 *
Multiple births	51.9	53.1	53.4	54.4	54.6	55.4	55.3	55.6	55.4	55.8	55.5	56.4	57.9	59.1	14 *
Method of delivery															
Cesarean	10.8	11.0	11.2	11.8	12.3	13.0	13.3	13.7	13.6	13.7	13.5	13.8	13.9	14.1	31 *
Not cesarean	5.5	5.6	5.6	5.8	6.0	6.2	6.3	6.3	6.1	5.8	5.6	5.6	5.7	5.8	6 *
Birth weight															
Less than 2,500 grams															***
Less than 1,500 grams															***
1,500-2,499 grams															•••
2,500 grams or more															
Gestational age															
Less than 37 weeks	39.2	39.7	39.9	40.6	41.4	42.1	42.4	42.0	41.2	40.5	39.9	39.8	39.9	40.4	3 *
Less than 32 weeks	75.2	76.0	76.9	76.8	76.6	76.3	77.1	77.4	77.5	77.5	77.4	77.9	78.3	79.0	5 *
32-36 weeks	31.4	31.6	31.8	32.9	33.9	34.8	35.1	34.8	34.1	33.2	32.7	32.6	32.7	33.2	6 *
37 weeks or more	2.9	2.9	2.8	3.0	3.1	3.3	3.3	3.2	3.1	3.0	2.9	2.9	3.0	3.0	6 *
Age of mother															
Under 20 years	8.7	8.8	8.9	9.2	9.6	9.7	10.0	10.0	9.9	9.4	9.1	9.0	9.4	9.8	12 *
Under 18 years	9.4	9.7	9.9	10.1	10.3	10.2	10.7	10.9	10.9	10.2	9.9	9.7	9.7	9.8	4
18-19 years	8.3	8.2	8.3	8.7	9.2	9.4	9.5	9.5	9.4	9.0	8.7	8.7	9.2	9.8	17 *
20 years and over	6.3	6.4	6.5	6.7	6.9	7.2	7.4	7.4	7.3	7.3	7.3	7.5	7.6	7.8	25 *
20-24 years	6.7	6.8	6.8	7.1	7.2	7.6	7.6	7.8	7.6	7.6	7.6	7.9	7.9	8.2	23 *
25-29 years	5.8	5.9	5.9	6.1	6.2	6.6	6.7	6.9	6.8	6.8	6.8	6.9	7.0	7.3	26 *
30-34 years	6.1	6.3	6.4	6.6	6.7	7.0	7.2	7.2	6.9	6.7	6.7	7.0	7.3	7.5	23 *
35 years and over	7.5	7.5	7.6	8.0	8.6	8.8	8.7	8.7	8.8	9.0	8.9	9.0	9.0	9.2	23 *
Age/Education															
<20, less than appropriate	9.2	9.2	9.0	9.3	10.1	10.4	10.7	10.6	10.3	9.7	9.3	9.5	9.8	10.0	9
<20, appropriate	8.4	8.5	8.8	9.1	9.3	9.4	9.6	9.7	9.8	9.2	9.0	8.8	9.2	9.6	14 *
20+, <12 years of education	8.5	8.8	9.0	9.3	9.4	9.7	9.9	9.9	9.5	9.1	8.7	8.8	8.8	8.9	4
20+, 12 years of education	6.6	6.8	6.8	7.1	7.3	7.7	7.9	8.0	7.8	7.9	7.9	8.2	8.3	8.6	30 *
20+, 13+ years of education	5.1	5.3	5.3	5.7	5.8	6.1	6.1	6.2	6.2	6.3	6.4	6.6	6.8	7.0	38 *

Table 10. Percent low birth weight by selected characteristics of infant and mother among all races, three-year moving averages: Indiana, 1990-2005--Con.

Table 10. Percent low birth weight	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	Percent Change
Characteristics	-1992	-1993	-1994	-1995	-1996	-1997	-1998	-1999	-2000	-2001	-2002	-2003	-2004	-2005	1990-1992 to 2003-2005
Educational attainment															
Less than 12 years	8.9	9.1	9.2	9.5	9.7	10.0	10.3	10.3	9.9	9.4	9.1	9.1	9.2	9.3	5 *
0-8 years	7.7	7.5	7.6	7.4	7.6	7.4	7.8	7.8	7.4	6.8	6.3	6.2	6.2	6.3	-17 *
9-11 years	9.1	9.4	9.6	10.0	10.2	10.6	10.9	10.9	10.6	10.2	9.9	10.1	10.2	10.3	13 *
12 years	6.7	6.8	6.9	7.2	7.5	7.8	8.0	8.1	8.0	7.9	7.9	8.1	8.3	8.7	29 *
More than 12 years	5.1	5.3	5.4	5.7	5.8	6.1	6.2	6.2	6.3	6.3	6.4	6.6	6.8	7.0	38 *
13-15 years	5.5	5.8	5.9	6.2	6.2	6.6	6.6	6.8	6.8	6.8	6.9	7.1	7.3	7.6	36 *
16 years and over	4.5	4.7	4.8	5.1	5.3	5.5	5.6	5.6	5.7	5.8	5.9	6.1	6.4	6.5	44 *
Live-birth order															
First	7.1	7.2	7.2	7.4	7.7	8.1	8.3	8.4	8.2	8.0	7.9	8.1	8.3	8.5	20 *
Second	5.7	5.9	6.0	6.2	6.3	6.5	6.6	6.7	6.7	6.6	6.5	6.7	6.9	7.1	24 *
Third	6.4	6.7	6.7	7.0	7.1	7.3	7.4	7.4	7.3	7.3	7.3	7.4	7.3	7.6	18 *
Fourth+	8.0	8.1	8.2	8.8	9.2	9.5	9.3	9.4	9.2	9.2	9.1	9.4	9.6	9.7	22 *
Marital status															
Married	5.4	5.5	5.5	5.7	6.0	6.3	6.4	6.5	6.4	6.4	6.4	6.6	6.7	6.9	28 *
Unmarried	9.8	9.8	9.8	10.0	10.1	10.3	10.4	10.4	10.1	9.7	9.5	9.6	9.6	9.9	1
Trimester prenatal care began															
First trimester	6.1	6.3	6.3	6.6	6.8	7.1	7.3	7.4	7.3	7.2	7.2	7.3	7.4	7.7	26 *
After first trimester	7.2	7.3	7.4	7.8	7.8	8.0	8.2	8.2	8.0	7.7	7.7	7.7	7.9	8.0	12 *
Second trimester	7.4	7.5	7.6	8.0	8.0	8.2	8.4	8.3	8.2	8.0	8.0	8.0	8.1	8.3	12 *
Third trimester	5.9	6.0	6.3	7.0	6.7	7.0	7.0	7.3	6.7	6.2	6.1	6.4	6.6	6.7	14 *
No care	18.3	19.1	22.0	22.1	24.1	23.7	24.1	23.1	22.1	21.4	21.4	24.3	25.0	24.0	31 *
Unknown	16.6	16.7	14.7	14.5	13.8	13.7	14.6	16.4	18.1	18.4	19.9	20.7	22.2	21.2	28 *
Prenatal care index <sup>1</sup>															
Adequate plus	13.1	13.8	13.9	14.2	14.1	14.2	14.0	14.0	13.8	13.7	13.5	13.7	14.0	14.4	11 *
Adequate	3.5	3.5	3.5	3.5	3.6	3.8	3.7	3.6	3.5	3.5	3.5	3.5	3.6	3.7	5 *
Intermediate	3.7	3.7	3.6	3.9	4.1	4.3	4.4	4.3	4.2	4.1	4.1	4.2	4.1	4.0	9 *
Inadequate	7.1	7.2	7.2	7.6	7.7	7.9	7.9	7.8	7.7	7.5	7.4	7.4	7.4	7.6	7 *
No care	18.3	19.1	22.0	22.1	24.1	23.7	24.1	23.1	22.1	21.4	21.4	24.3	25.0	24.0	31 *
Unknown	15.7	15.6	14.4	14.0	13.0	12.7	13.0	14.3	15.0	15.1	15.5	16.5	17.8	17.9	14 *
Maternal smoking															
Smoking	10.3	10.5	10.6	11.0	11.4	11.8	12.0	12.0	11.8	11.3	11.0	11.2	11.5	11.7	14 *
Not smoking	5.3	5.5	5.6	5.9	6.1	6.4	6.5	6.6	6.5	6.6	6.6	6.8	7.0	7.2	35 *

Based on APNCU index (Kotelchuck, M., Am J Public Health 1994;84:1414-1420).

Note: Low birth weight is birth weight of less than 2,500 grams.

<sup>...</sup> Category not applicable

<sup>\*</sup>Significant at p<0.05.

Table 11. Percent low birth weight by selected characteristics of infant and mother among whites, three-year moving averages; Indiana, 1990-2005

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	Percent Change
Characteristics	-1992	-1993	-1994	-1995	-1996	-1997	-1998	-1999	-2000	-2001	-2002	-2003	-2004	-2005	1990-1992 to 2003-200
All	5.9	6.0	6.1	6.4	6.6	6.9	7.0	7.2	7.0	6.9	6.9	7.0	7.2	7.4	26 *
Plurality															
Single births	4.8	4.9	5.0	5.2	5.4	5.6	5.7	5.7	5.5	5.4	5.3	5.3	5.4	5.6	16 *
Multiple births	50.4	51.9	52.1	53.7	53.9	54.5	53.9	54.5	54.6	55.0	54.3	55.0	56.7	58.0	15 *
Method of delivery															
Cesarean	10.1	10.4	10.6	11.3	11.7	12.3	12.6	13.1	13.0	13.0	12.7	12.9	13.1	13.3	33 *
Not cesarean	4.7	4.8	4.9	5.1	5.3	5.5	5.6	5.6	5.4	5.2	5.0	5.0	5.1	5.2	9 *
Birth weight															
Less than 2,500 grams															
Less than 1,500 grams															
1,500-2,499 grams															
2,500 grams or more															
Gestational age															
Less than 37 weeks	38.5	38.9	39.0	39.8	40.6	41.4	41.4	41.0	40.1	39.3	38.6	38.5	38.6	39.1	2
Less than 32 weeks	75.8	76.8	77.7	78.2	77.7	77.0	76.8	76.9	77.1	77.4	77.1	77.2	77.4	77.9	3 *
32-36 weeks	31.3	31.4	31.5	32.6	33.5	34.5	34.7	34.3	33.5	32.5	31.9	31.8	32.0	32.5	4 *
37 weeks or more	2.5	2.5	2.5	2.7	2.8	2.9	3.0	3.0	2.8	2.7	2.6	2.6	2.7	2.7	7 *
Age of mother															
Under 20 years	7.7	7.8	7.9	8.4	8.8	8.9	9.0	9.0	8.9	8.3	8.1	8.0	8.3	8.8	14 *
Under 18 years	8.2	8.4	8.3	8.8	9.1	9.3	9.7	9.8	9.8	9.0	8.8	8.6	8.5	8.6	4
18-19 years	7.5	7.5	7.7	8.1	8.5	8.6	8.7	8.6	8.6	8.0	7.8	7.8	8.2	8.8	19 *
20 years and over	5.6	5.8	5.9	6.1	6.3	6.6	6.7	6.9	6.8	6.7	6.7	6.9	7.0	7.2	28 *
20-24 years	6.0	6.1	6.1	6.4	6.5	6.9	6.9	7.1	7.0	6.9	6.9	7.1	7.2	7.4	25 *
25-29 years	5.2	5.3	5.3	5.6	5.7	6.0	6.2	6.4	6.3	6.3	6.2	6.2	6.4	6.7	28 *
30-34 years	5.5	5.7	5.8	5.9	6.1	6.4	6.7	6.7	6.5	6.3	6.2	6.6	6.9	7.1	29 *
35 years and over	6.7	6.8	7.0	7.5	7.9	8.1	7.9	7.9	8.0	8.4	8.3	8.4	8.4	8.6	29 *
Age/Education															
<20, less than appropriate	8.5	8.5	8.5	9.0	9.8	10.0	10.1	10.1	9.7	8.9	8.6	8.8	9.0	9.3	9
<20, appropriate	7.3	7.4	7.6	8.0	8.3	8.4	8.5	8.6	8.6	8.0	7.8	7.6	8.0	8.5	16 *
20+, <12 years of education	7.8	8.0	8.2	8.4	8.6	9.0	9.1	9.2	8.7	8.4	7.9	8.0	8.0	8.1	4
20+, 12 years of education	6.0	6.1	6.2	6.4	6.6	7.0	7.2	7.4	7.3	7.2	7.1	7.4	7.6	7.9	33 *
20+, 13+ years of education	4.6	4.8	4.9	5.2	5.4	5.6	5.7	5.7	5.8	5.9	6.0	6.1	6.3	6.5	43 *

Table 11. Percent low birth weight by selected characteristics of infant and mother among whites, three-year moving averages: Indiana, 1990-2005--Con.

Table 11. Percent low birth wei	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	20030	Percent Change
Characteristics	-1992	-1993	-1994	-1995	-1996	-1997	-1998	-1999	-2000	-2001	-2002	-2003	-2004	-2005	1990-1992 to 2003-2005
Educational attainment															
Less than 12 years	8.0	8.2	8.3	8.7	8.9	9.2	9.4	9.5	9.1	8.6	8.2	8.3	8.3	8.4	5 *
0-8 years	7.2	7.0	7.0	7.0	7.3	7.1	7.4	7.3	6.9	6.4	6.0	6.1	6.0	6.1	-15 *
9-11 years	8.2	8.5	8.6	9.1	9.3	9.8	10.0	10.1	9.8	9.3	8.9	9.1	9.1	9.3	14 *
12 years	6.0	6.1	6.2	6.5	6.8	7.1	7.3	7.5	7.3	7.2	7.1	7.4	7.6	8.0	32 *
More than 12 years	4.6	4.8	4.9	5.2	5.4	5.6	5.7	5.8	5.8	5.9	6.0	6.2	6.3	6.5	43 *
13-15 years	4.8	5.1	5.2	5.6	5.6	5.9	5.9	6.1	6.1	6.2	6.3	6.4	6.6	6.9	43 *
16 years and over	4.3	4.4	4.5	4.8	5.2	5.3	5.4	5.4	5.5	5.6	5.7	5.9	6.1	6.2	44 *
Live-birth order															
First	6.5	6.6	6.6	6.9	7.1	7.5	7.7	7.8	7.6	7.5	7.4	7.5	7.7	7.9	23 *
Second	5.1	5.2	5.4	5.7	5.8	6.0	6.1	6.2	6.1	6.0	6.0	6.1	6.3	6.5	27 *
Third	5.6	5.9	5.9	6.2	6.4	6.6	6.6	6.7	6.6	6.7	6.6	6.8	6.7	6.9	23 *
Fourth+	6.7	6.7	6.7	7.3	7.6	7.9	7.8	8.2	8.1	8.1	7.9	8.2	8.4	8.7	31 *
Marital status															
Married	5.2	5.3	5.4	5.6	5.8	6.1	6.2	6.3	6.2	6.2	6.2	6.4	6.5	6.7	29 *
Unmarried	8.4	8.4	8.4	8.7	8.8	9.0	9.1	9.3	9.0	8.6	8.3	8.3	8.4	8.7	4 *
Trimester prenatal care began															
First trimester	5.6	5.7	5.8	6.1	6.3	6.6	6.7	6.9	6.8	6.7	6.6	6.8	6.9	7.1	28 *
After first trimester	6.3	6.3	6.4	6.9	6.9	7.1	7.2	7.3	7.1	6.8	6.8	6.9	7.0	7.2	14 *
Second trimester	6.5	6.6	6.6	7.0	7.1	7.2	7.4	7.4	7.3	7.1	7.1	7.1	7.3	7.4	14 *
Third trimester	5.2	5.0	5.3	5.9	5.9	6.2	6.3	6.4	5.8	5.5	5.5	5.9	6.0	6.1	18 *
No care	14.1	14.7	16.5	17.2	18.3	18.5	18.9	19.2	18.1	17.5	17.8	21.0	22.6	21.1	50 *
Unknown	15.0	14.7	13.2	13.1	12.8	12.3	13.5	14.8	17.1	17.2	19.8	19.7	21.6	21.1	*
Prenatal care index <sup>1</sup>															
Adequate plus	12.3	13.0	13.2	13.5	13.4	13.6	13.3	13.4	13.1	13.0	12.6	12.9	13.2	13.7	11 *
Adequate	3.2	3.2	3.2	3.2	3.3	3.4	3.4	3.3	3.2	3.2	3.2	3.2	3.3	3.4	5 *
Intermediate	3.2	3.2	3.1	3.3	3.6	3.8	4.0	3.9	3.8	3.6	3.7	3.7	3.6	3.5	11 *
Inadequate	6.2	6.2	6.2	6.6	6.7	6.9	6.9	6.8	6.7	6.5	6.5	6.6	6.6	6.7	8 *
No care	14.1	14.7	16.5	17.2	18.3	18.5	18.9	19.2	18.1	17.5	17.8	21.0	22.6	21.1	50 *
Unknown	14.7	14.2	13.5	13.0	12.2	11.6	12.1	13.1	14.1	14.1	14.8	15.2	16.6	16.6	13 *
Maternal smoking															
Smoking	9.4	9.7	9.8	10.2	10.5	11.0	11.2	11.3	11.1	10.6	10.3	10.5	10.9	11.1	17 *
Not smoking	4.6	4.8	4.9	5.2	5.4	5.7	5.8	5.9	5.8	5.9	5.9	6.1	6.2	6.5	41 *

Based on APNCU index (Kotelchuck, M., Am J Public Health 1994;84:1414-1420).

Note: Low birth weight is birth weight of less than 2,500 grams.

<sup>...</sup> Category not applicable

<sup>\*</sup>Significant at p<0.05.

Table 12. Percent low birth weight by selected characteristics of infant and mother among blacks, three-year moving averages: Indiana, 1990-2005

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	Percent Change
Characteristics	-1992	-1993	-1994	-1995	-1996	-1997	-1998	-1999	-2000	-2001	-2002	-2003	-2004	-2005	1990-1992 to 2003-2005
All	12.4	12.6	12.6	12.8	13.1	13.5	13.7	13.3	13.0	12.8	12.9	13.1	13.3	13.4	8 *
Plurality															
Single births	11.0	11.2	11.1	11.4	11.6	11.9	11.9	11.6	11.2	11.0	10.8	10.9	11.2	11.3	3
Multiple births	62.5	62.3	62.0	59.2	59.5	62.4	65.6	63.6	61.6	61.3	64.4	66.6	67.2	66.7	7
Method of delivery															
Cesarean	16.8	16.4	15.9	16.0	17.3	18.9	19.7	19.0	18.9	19.6	19.9	20.2	20.1	20.4	21 *
Not cesarean	11.2	11.5	11.6	11.8	11.8	12.0	12.0	11.7	11.3	10.7	10.5	10.5	10.7	10.6	-6 *
Birth weight															
Less than 2,500 grams															
Less than 1,500 grams															•••
1,500-2,499 grams															•••
2,500 grams or more															
Gestational age															
Less than 37 weeks	41.8	42.6	43.6	43.9	45.1	45.9	47.6	47.5	47.2	46.3	46.2	46.4	46.9	47.4	13 *
Less than 32 weeks	73.1	73.9	74.5	72.6	73.6	74.3	78.0	78.5	78.6	77.9	78.7	80.6	81.7	83.3	14 *
32-36 weeks	31.9	32.6	33.4	34.5	35.7	36.8	38.2	38.0	38.0	37.0	37.1	36.6	37.2	37.2	17 *
37 weeks or more	5.5	5.7	5.5	5.7	5.8	6.1	5.9	5.5	5.3	5.2	5.3	5.4	5.4	5.4	-2
Age of mother															
Under 20 years	12.3	12.2	12.5	12.3	12.9	13.1	13.6	13.9	13.8	13.7	13.2	13.3	13.9	13.9	13 *
Under 18 years	12.5	13.1	14.1	13.5	13.5	13.1	14.0	14.3	14.2	13.7	13.6	13.8	14.1	14.0	13
18-19 years	12.1	11.5	11.1	11.3	12.4	13.1	13.3	13.6	13.6	13.6	12.9	13.0	13.8	13.8	14 *
20 years and over	12.4	12.7	12.6	12.9	13.0	13.5	13.6	13.0	12.6	12.5	12.7	12.9	13.1	13.2	7 *
20-24 years	11.4	11.6	11.6	11.8	11.9	12.2	12.3	11.9	11.9	12.1	12.2	12.6	12.6	13.0	14 *
25-29 years	12.2	12.6	12.4	12.7	12.3	13.4	13.4	13.0	12.0	11.9	12.4	12.6	13.1	13.0	6
30-34 years	13.8	14.7	14.9	15.2	15.4	15.5	15.0	13.3	12.9	11.9	12.6	12.3	12.9	12.9	-6
35 years and over	17.5	16.0	14.6	14.5	16.9	17.0	18.7	18.6	18.5	17.5	16.3	16.8	16.0	16.1	-8
Age/Education															
<20, less than appropriate	13.9	13.4	12.0	10.8	11.7	13.3	14.0	13.6	13.7	14.4	14.1	14.0	14.7	14.7	6
<20, appropriate	11.9	11.9	12.5	12.5	13.0	12.9	13.4	13.9	13.9	13.5	13.0	13.2	13.7	13.6	14 *
20+, <12 years of education	14.3	14.5	15.1	15.6	15.8	16.0	16.5	15.4	15.1	14.2	15.0	14.8	15.3	15.0	5
20+, 12 years of education	12.6	12.9	12.8	13.3	13.6	14.1	13.6	12.9	12.4	12.7	13.0	13.3	13.0	13.1	4
20+, 13+ years of education	11.0	11.4	11.0	10.9	11.0	11.6	12.0	11.8	11.5	11.1	11.2	11.6	12.0	12.4	13 *

Table 12. Percent low birth weight by selected characteristics of infant and mother among blacks, three-year moving averages: Indiana, 1990-2005--Con.

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	Percent Change
Characteristics	-1992	-1993	-1994	-1995	-1996	-1997	-1998	-1999	-2000	-2001	-2002	-2003	-2004	-2005	1990-1992 to 2003-2005
Educational attainment															
Less than 12 years	13.3	13.5	13.9	13.8	14.1	14.4	15.1	14.7	14.7	14.3	14.5	14.5	14.9	14.7	10 *
0-8 years	13.7	14.0	14.7	13.1	12.4	12.0	13.8	15.7	16.3	14.7	12.8	10.7	12.8	14.7	8
9-11 years	13.3	13.5	13.9	13.9	14.3	14.6	15.2	14.7	14.5	14.2	14.6	14.7	15.1	14.7	10 *
12 years	12.3	12.4	12.4	13.0	13.4	13.8	13.5	13.0	12.6	12.7	12.8	13.1	12.9	13.1	7
More than 12 years	11.1	11.4	10.9	10.8	11.0	11.5	12.0	11.9	11.6	11.2	11.2	11.6	12.2	12.5	12 *
13-15 years	11.3	11.5	11.1	10.8	11.3	12.0	12.7	12.7	12.2	11.9	11.6	12.2	12.6	12.8	13 *
16 years and over	10.1	11.2	10.4	10.8	9.9	10.1	10.1	9.6	9.8	9.4	10.2	10.2	11.1	11.5	14
Live-birth order															
First	12.5	12.5	12.1	12.2	12.7	13.0	13.6	13.6	13.2	12.8	12.5	12.8	13.5	13.6	8 *
Second	11.1	11.6	11.8	11.4	11.4	11.7	11.5	11.5	11.5	11.9	11.9	12.0	12.3	12.6	13 *
Third	12.3	12.4	12.3	13.0	12.9	13.3	13.7	13.0	12.7	12.1	12.3	12.4	11.9	12.5	1
Fourth+	14.2	14.5	15.1	15.8	16.9	17.4	17.0	15.6	14.8	14.6	15.3	15.4	15.5	15.1	6
Marital status															
Married	10.5	10.4	9.7	9.6	10.0	11.1	11.5	11.3	10.7	10.6	10.8	10.9	11.4	11.3	8
Unmarried	13.0	13.2	13.4	13.6	13.9	14.1	14.2	13.8	13.6	13.4	13.4	13.6	13.8	14.0	8 *
Trimester prenatal care began															
First trimester	11.6	11.6	11.6	11.7	12.1	12.5	12.8	12.5	12.3	12.2	12.4	12.6	12.9	12.8	10 *
After first trimester	11.0	11.5	11.8	12.2	12.2	12.6	12.6	12.4	12.2	11.9	11.7	11.7	11.8	12.0	9 *
Second trimester	11.5	11.8	12.0	12.4	12.6	12.9	13.1	12.6	12.6	12.4	12.3	12.3	12.3	12.6	9 *
Third trimester	8.6	9.9	10.4	11.5	10.1	10.7	10.1	11.1	10.7	9.7	8.9	8.7	9.4	9.3	8
No care	25.9	27.2	31.9	32.1	36.0	35.2	34.9	31.8	30.9	30.7	29.3	30.9	29.6	29.8	15
Unknown	22.6	24.9	22.0	21.2	17.9	19.6	20.7	24.8	24.3	24.2	23.2	27.6	28.1	30.1	33 *
Prenatal care index <sup>1</sup>															
Adequate plus	19.2	20.2	20.4	20.1	19.4	19.6	20.0	19.6	19.2	19.2	20.1	20.2	20.4	20.3	6
Adequate	7.8	7.5	7.5	7.4	7.6	8.0	7.9	7.5	7.1	7.1	7.0	7.2	7.3	7.2	-8
Intermediate	7.8	7.6	7.4	7.9	8.5	8.8	8.2	7.5	7.6	7.7	7.7	7.7	7.7	7.5	-3
Inadequate	10.6	11.1	11.3	11.8	11.9	12.1	12.1	11.9	12.0	11.6	11.0	10.6	11.0	11.8	11 *
No care	25.9	27.2	31.9	32.1	36.0	35.2	34.9	31.8	30.9	30.7	29.3	30.9	29.6	29.8	15
Unknown	19.6	20.6	17.9	17.4	15.7	16.7	17.4	19.7	19.5	19.3	19.4	23.0	24.8	25.5	30 *
Maternal smoking															
Smoking	18.9	19.1	19.5	20.2	20.6	21.0	20.8	19.7	19.2	18.7	18.5	18.7	18.1	18.7	-1
Not smoking	10.6	10.9	10.9	11.0	11.4	12.0	12.2	12.0	11.7	11.6	11.7	12.0	12.4	12.4	18 *

Based on APNCU index (Kotelchuck, M., Am J Public Health 1994;84:1414-1420).

Note: Low birth weight is birth weight of less than 2,500 grams

<sup>...</sup> Category not applicable \*Significant at p<0.05.

Table 13. Percent low birth weight by selected characteristics of infant and mother among non-Hispanic whites, three-year moving averages: Indiana, 1990-2005

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	Percent Change
Characteristics	-1992	-1993	-1994	-1995	-1996	-1997	-1998	-1999	-2000	-2001	-2002	-2003	-2004	-2005	1990-1992 to 2003-2009
All	5.9	6.0	6.1	6.4	6.6	6.9	7.1	7.2	7.1	7.0	6.9	7.1	7.3	7.5	28 *
Plurality															
Single births	4.8	4.9	5.0	5.2	5.4	5.6	5.7	5.7	5.5	5.4	5.3	5.4	5.4	5.6	17 *
Multiple births	50.4	52.0	52.0	53.9	53.9	54.7	53.9	54.6	54.8	55.3	54.6	55.0	56.9	58.4	16 *
Method of delivery															
Cesarean	10.1	10.4	10.7	11.4	11.8	12.4	12.6	13.2	13.1	13.2	13.0	13.2	13.4	13.6	35 *
Not cesarean	4.7	4.8	4.9	5.1	5.3	5.5	5.6	5.6	5.4	5.2	5.0	5.1	5.1	5.2	11 *
Birth weight															
Less than 2,500 grams															
Less than 1,500 grams															
1,500-2,499 grams															
2,500 grams or more															
Gestational age															
Less than 37 weeks	38.7	39.1	39.1	40.0	40.7	41.6	41.6	41.3	40.6	40.0	39.3	39.2	39.3	39.9	3 *
Less than 32 weeks	76.2	77.0	78.0	78.4	78.1	77.4	77.1	77.3	77.7	78.0	77.8	77.8	78.1	78.8	3 *
32-36 weeks	31.5	31.5	31.7	32.7	33.7	34.8	34.9	34.7	33.9	33.3	32.7	32.6	32.7	33.2	6 *
37 weeks or more	2.5	2.5	2.5	2.7	2.8	2.9	3.0	3.0	2.8	2.7	2.6	2.6	2.7	2.8	9 *
Age of mother															
Under 20 years	7.7	7.8	7.9	8.4	8.8	8.9	9.1	9.1	9.1	8.5	8.2	8.2	8.6	9.1	18 *
Under 18 years	8.2	8.3	8.3	8.8	9.1	9.3	9.8	9.9	9.9	9.1	8.8	8.7	8.7	8.9	8
18-19 years	7.5	7.5	7.7	8.1	8.6	8.7	8.7	8.7	8.7	8.2	8.0	8.0	8.5	9.2	22 *
20 years and over	5.6	5.8	5.8	6.1	6.3	6.6	6.7	6.9	6.8	6.8	6.8	6.9	7.1	7.3	30 *
20-24 years	6.0	6.1	6.1	6.4	6.5	6.9	7.0	7.2	7.1	7.0	7.0	7.3	7.4	7.7	28 *
25-29 years	5.2	5.3	5.3	5.6	5.7	6.0	6.2	6.4	6.4	6.3	6.3	6.3	6.5	6.7	29 *
30-34 years	5.4	5.6	5.8	5.9	6.2	6.4	6.7	6.7	6.5	6.3	6.3	6.7	6.9	7.1	31 *
35 years and over	6.6	6.8	7.0	7.5	7.9	8.1	7.9	7.9	8.1	8.4	8.4	8.4	8.5	8.6	30 *
Age/Education															
<20, less than appropriate	8.6	8.6	8.6	9.2	10.1	10.3	10.5	10.4	10.2	9.2	8.7	9.2	9.9	10.2	19 *
<20, appropriate	7.3	7.4	7.6	8.0	8.3	8.3	8.5	8.5	8.6	8.2	8.0	7.7	8.0	8.6	18 *
20+, <12 years of education	7.8	8.1	8.3	8.7	8.8	9.4	9.4	9.7	9.3	9.0	8.6	8.7	8.9	9.1	17 *
20+, 12 years of education	6.0	6.1	6.2	6.4	6.6	7.0	7.2	7.5	7.3	7.3	7.2	7.5	7.7	8.1	35 *
20+, 13+ years of education	4.5	4.8	4.8	5.2	5.4	5.6	5.7	5.7	5.8	5.9	6.0	6.1	6.3	6.5	43 *

Table 13. Percent low birth weight by selected characteristics of infant and mother among non-Hispanic whites, three-year moving averages: Indiana, 1990-2005

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	Percent Change
Characteristics	-1992	-1993	-1994	-1995	-1996	-1997	-1998	-1999	-2000	-2001	-2002	-2003	-2004	-2005	1990-1992 to 2003-2005
Educational attainment															
Less than 12 years	8.0	8.2	8.4	8.8	9.1	9.5	9.7	9.9	9.6	9.1	8.7	8.9	9.1	9.3	16 *
0-8 years	7.2	7.1	7.2	7.4	7.7	7.6	7.7	7.6	7.4	6.6	6.1	6.1	6.4	6.5	-9
9-11 years	8.2	8.5	8.7	9.2	9.4	9.9	10.1	10.4	10.1	9.7	9.4	9.6	9.8	10.1	23 *
12 years	6.0	6.1	6.2	6.5	6.8	7.1	7.3	7.5	7.4	7.3	7.2	7.5	7.7	8.1	34 *
More than 12 years	4.6	4.8	4.9	5.2	5.4	5.6	5.7	5.8	5.8	5.9	6.0	6.2	6.3	6.5	43 *
13-15 years	4.8	5.1	5.2	5.6	5.6	5.9	5.9	6.1	6.1	6.2	6.3	6.4	6.6	6.9	44 *
16 years and over	4.3	4.4	4.5	4.8	5.2	5.3	5.4	5.4	5.5	5.6	5.7	5.9	6.1	6.2	44 *
Live-birth order															
First	6.5	6.6	6.6	6.8	7.1	7.5	7.7	7.8	7.7	7.5	7.4	7.6	7.8	8.0	24 *
Second	5.1	5.2	5.4	5.7	5.8	6.0	6.1	6.2	6.2	6.1	6.1	6.2	6.4	6.6	30 *
Third	5.6	5.8	5.9	6.2	6.4	6.6	6.6	6.8	6.7	6.8	6.7	6.8	6.8	7.1	26 *
Fourth+	6.6	6.8	6.7	7.3	7.6	8.0	7.8	8.3	8.2	8.2	8.0	8.4	8.7	8.9	34 *
Marital status															
Married	5.2	5.3	5.4	5.6	5.8	6.1	6.2	6.3	6.2	6.2	6.2	6.4	6.6	6.8	30 *
Unmarried	8.4	8.4	8.4	8.7	8.8	9.0	9.2	9.4	9.2	8.8	8.5	8.6	8.8	9.1	8 *
Trimester prenatal care began															
First trimester	5.5	5.7	5.8	6.1	6.3	6.6	6.7	6.9	6.8	6.8	6.7	6.8	6.9	7.2	29 *
After first trimester	6.3	6.4	6.5	6.9	7.0	7.2	7.4	7.5	7.4	7.0	7.1	7.2	7.5	7.6	21 *
Second trimester	6.5	6.6	6.7	7.1	7.2	7.3	7.5	7.6	7.6	7.3	7.3	7.4	7.7	7.9	21 *
Third trimester	5.2	5.1	5.4	6.1	6.1	6.5	6.5	6.6	6.1	5.7	5.9	6.3	6.4	6.5	24 *
No care	13.9	14.6	16.1	17.3	18.4	19.0	19.4	20.1	19.4	18.2	18.2	21.4	23.0	22.0	58 *
Unknown	15.0	14.7	13.2	13.2	12.7	12.3	13.3	14.7	17.4	19.0	22.6	22.2	23.2	22.4	49 *
Prenatal care index <sup>1</sup>															
Adequate plus	12.3	13.0	13.2	13.5	13.5	13.6	13.3	13.3	13.2	13.0	12.8	13.0	13.3	13.8	12 *
Adequate	3.2	3.2	3.2	3.2	3.3	3.4	3.4	3.3	3.2	3.2	3.1	3.2	3.3	3.3	5
Intermediate	3.1	3.1	3.1	3.3	3.6	3.7	3.9	3.9	3.8	3.6	3.6	3.7	3.6	3.5	11 *
Inadequate	6.2	6.2	6.2	6.7	6.9	7.1	7.1	7.1	7.0	6.8	6.9	7.0	7.1	7.2	15 *
No care	13.9	14.6	16.1	17.3	18.4	19.0	19.4	20.1	19.4	18.2	18.2	21.4	23.0	22.0	58 *
Unknown	14.6	14.3	13.7	13.3	12.4	11.8	12.1	13.3	14.4	14.8	15.7	16.3	17.8	17.6	20 *
Maternal smoking															
Smoking	9.4	9.6	9.7	10.2	10.5	11.0	11.2	11.3	11.2	10.7	10.4	10.5	10.9	11.1	18 *
Not smoking	4.6	4.7	4.9	5.2	5.4	5.6	5.8	5.9	5.8	5.9	5.9	6.1	6.3	6.6	43 *

<sup>\*</sup>Significant at p<0.05.

Note: Low birth weight is birth weight of less than 2,500 grams

Table 14. Percent low birth weight by selected characteristics of infant and mother among non-Hispanic blacks, three-year moving averages: Indiana, 1990-2005

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	Percent Change
Characteristics	-1992	-1993	-1994	-1995	-1996	-1997	-1998	-1999	-2000	-2001	-2002	-2003	-2004	-2005	1990-1992 to 2003-200
All	12.4	12.6	12.6	12.7	13.1	13.5	13.7	13.3	13.0	12.8	12.9	13.1	13.3	13.5	9 *
Plurality															
Single births	11.0	11.2	11.1	11.4	11.6	11.9	11.9	11.6	11.2	11.0	10.8	10.9	11.2	11.4	3
Multiple births	62.4	62.2	61.9	59.2	59.6	62.5	65.7	63.6	61.6	61.3	64.4	66.6	67.2	66.7	7
Method of delivery															
Cesarean	16.9	16.4	15.9	16.0	17.3	18.9	19.7	19.0	18.9	19.6	19.9	20.3	20.2	20.5	21 *
Not cesarean	11.2	11.5	11.6	11.8	11.8	12.0	12.0	11.8	11.3	10.8	10.5	10.5	10.7	10.6	-5 *
Birth weight															
Less than 2,500 grams															
Less than 1,500 grams															
1,500-2,499 grams															
2,500 grams or more															
Gestational age															
Less than 37 weeks	41.8	42.7	43.6	43.9	45.0	45.8	47.6	47.6	47.3	46.5	46.3	46.5	47.0	47.5	13 *
Less than 32 weeks	73.0	73.9	74.5	72.5	73.4	74.2	78.0	78.5	78.8	78.1	78.8	80.6	81.6	83.3	14 *
32-36 weeks	32.0	32.6	33.4	34.5	35.6	36.8	38.2	38.1	38.1	37.1	37.2	36.7	37.3	37.3	17 *
37 weeks or more	5.5	5.7	5.5	5.7	5.8	6.1	5.9	5.5	5.2	5.2	5.3	5.4	5.5	5.4	-2
Age of mother															
Under 20 years	12.3	12.2	12.5	12.3	12.9	13.1	13.6	13.9	13.9	13.7	13.2	13.4	14.0	14.0	13 *
Under 18 years	12.5	13.1	14.1	13.5	13.5	13.1	14.1	14.3	14.3	13.7	13.6	13.9	14.1	14.1	13
18-19 years	12.2	11.5	11.1	11.3	12.4	13.1	13.3	13.6	13.6	13.7	12.9	13.1	13.9	13.9	14 *
20 years and over	12.4	12.7	12.6	12.8	13.0	13.5	13.6	13.0	12.7	12.5	12.7	12.9	13.1	13.3	7 *
20-24 years	11.3	11.6	11.6	11.8	11.9	12.2	12.3	11.9	11.9	12.1	12.3	12.6	12.6	13.0	15 *
25-29 years	12.2	12.6	12.4	12.6	12.3	13.4	13.4	13.0	12.0	12.0	12.5	12.7	13.1	13.0	7
30-34 years	13.8	14.7	15.0	15.2	15.4	15.5	15.0	13.4	12.9	11.9	12.6	12.3	12.9	12.9	-6
35 years and over	17.6	16.0	14.7	14.5	16.9	16.9	18.7	18.6	18.5	17.5	16.2	16.8	16.0	16.3	-8
Age/Education															
<20, less than appropriate	13.8	13.4	11.9	10.7	11.6	13.3	14.0	13.7	13.7	14.5	14.1	14.1	14.8	14.7	6
<20, appropriate	12.0	11.9	12.4	12.5	13.0	12.9	13.4	13.9	13.9	13.5	13.0	13.2	13.8	13.7	15 *
20+, <12 years of education	14.3	14.5	15.1	15.6	15.8	16.0	16.5	15.4	15.2	14.2	15.0	14.8	15.3	15.0	5
20+, 12 years of education	12.6	12.9	12.8	13.3	13.6	14.1	13.7	12.9	12.5	12.8	13.0	13.4	13.0	13.1	5
20+, 13+ years of education	11.0	11.4	11.0	10.9	11.0	11.6	12.0	11.8	11.5	11.2	11.2	11.6	12.1	12.5	13 *

Table 14. Percent low birth weight b	v selected characteristics	of infant and mother among	non-Hispanic blacks, three	e-vear moving averages: In	diana. 1990-2005Con.

Table 14. Percent low birth we	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	Percent Change
Characteristics	-1992	-1993	-1994	-1995	-1996	-1997	-1998	-1999	-2000	-2001	-2002	-2003	-2004	-2005	1990-1992 to 2003-2005
Educational attainment															
Less than 12 years	13.3	13.5	13.9	13.8	14.1	14.5	15.1	14.8	14.7	14.3	14.5	14.5	15.0	14.8	11 *
0-8 years	13.7	14.0	14.6	13.1	12.4	12.1	14.0	15.9	16.5	14.9	12.5	10.4	12.6	14.9	9
9-11 years	13.3	13.5	13.8	13.9	14.2	14.6	15.2	14.7	14.6	14.3	14.7	14.8	15.1	14.7	11 *
12 years	12.3	12.4	12.4	12.9	13.4	13.8	13.5	13.0	12.6	12.7	12.8	13.1	13.0	13.2	7
More than 12 years	11.1	11.4	10.9	10.8	11.0	11.5	12.0	11.9	11.6	11.2	11.3	11.6	12.2	12.5	12 *
13-15 years	11.4	11.5	11.1	10.8	11.3	12.0	12.7	12.7	12.2	11.9	11.7	12.2	12.6	12.8	13 *
16 years and over	10.1	11.1	10.5	10.8	9.8	10.1	10.0	9.5	9.7	9.3	10.2	10.2	11.1	11.6	15
Live-birth order															
First	12.6	12.5	12.1	12.2	12.7	13.0	13.6	13.6	13.2	12.8	12.5	12.8	13.5	13.6	8 *
Second	11.1	11.6	11.8	11.4	11.3	11.7	11.5	11.6	11.6	11.9	11.9	12.1	12.4	12.6	14 *
Third	12.3	12.4	12.3	12.9	12.8	13.3	13.7	13.0	12.7	12.1	12.3	12.5	12.0	12.5	2
Fourth+	14.2	14.5	15.1	15.9	16.9	17.4	17.1	15.6	14.8	14.7	15.3	15.4	15.6	15.1	6
Marital status															
Married	10.5	10.4	9.8	9.5	10.0	11.0	11.5	11.3	10.7	10.6	10.7	10.9	11.4	11.4	8
Unmarried	13.0	13.2	13.4	13.6	13.9	14.1	14.2	13.8	13.6	13.4	13.5	13.7	13.8	14.0	8 *
Trimester prenatal care began															
First trimester	11.6	11.6	11.6	11.7	12.1	12.5	12.8	12.5	12.3	12.2	12.4	12.6	12.9	12.8	10 *
After first trimester	11.0	11.5	11.8	12.2	12.2	12.6	12.6	12.4	12.2	12.0	11.8	11.8	11.8	12.0	10 *
Second trimester	11.5	11.8	12.0	12.4	12.6	13.0	13.2	12.7	12.6	12.4	12.4	12.4	12.3	12.6	10 *
Third trimester	8.5	9.9	10.4	11.5	10.1	10.7	10.1	11.2	10.7	9.8	9.0	8.8	9.5	9.3	10
No care	26.0	27.2	31.9	32.1	35.9	35.2	34.9	31.8	30.9	30.7	29.3	30.9	29.8	30.0	15
Unknown	22.7	24.9	22.1	21.2	17.9	19.7	20.8	24.8	24.2	24.5	23.5	28.1	28.1	30.2	33 *
Prenatal care index <sup>1</sup>															
Adequate plus	19.3	20.2	20.4	20.0	19.4	19.6	20.0	19.6	19.2	19.2	20.1	20.2	20.5	20.4	6
Adequate	7.8	7.6	7.5	7.4	7.6	8.0	7.9	7.5	7.1	7.1	7.0	7.2	7.3	7.2	-8
Intermediate	7.7	7.6	7.4	7.9	8.5	8.8	8.3	7.5	7.6	7.7	7.7	7.7	7.7	7.5	-3
Inadequate	10.6	11.1	11.3	11.8	11.8	12.1	12.1	12.0	12.0	11.7	11.1	10.7	11.1	11.8	12 *
No care	26.0	27.2	31.9	32.1	35.9	35.2	34.9	31.8	30.9	30.7	29.3	30.9	29.8	30.0	15
Unknown	19.7	20.6	18.0	17.3	15.7	16.7	17.6	19.8	19.5	19.4	19.5	23.2	24.9	25.6	30 *
Maternal smoking															
Smoking	18.9	19.1	19.5	20.2	20.6	21.0	20.8	19.8	19.2	18.8	18.6	18.8	18.2	18.8	-1
Not smoking  Based on APNCI index (Kotelchuck	10.6	10.9	10.9	11.0	11.4	12.0	12.2	12.0	11.7	11.6	11.7	12.0	12.4	12.5	18 *

<sup>\*</sup>Significant at p<0.05.

Note: Low birth weight is birth weight of less than 2,500 grams

Table 15. Percent low birth weight by selected characteristics of infant and mother among Hispanics, three-year moving averages: Indiana, 1990-2005

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	Percent Change
Characteristics	-1992	-1993	-1994	-1995	-1996	-1997	-1998	-1999	-2000	-2001	-2002	-2003	-2004	-2005	1990-1992 to 2003-200
All	6.0	6.5	6.4	6.4	6.4	6.8	7.0	6.8	6.1	6.1	6.0	6.2	6.2	6.3	6
Plurality															
Single births	5.1	5.6	5.4	5.4	5.3	5.7	5.7	5.5	5.1	5.1	5.2	5.2	5.2	5.2	3
Multiple births	51.4	48.1	57.1	50.0	54.0	48.6	56.0	54.4	52.3	51.1	48.7	54.9	54.3	53.2	4
Method of delivery															
Cesarean	8.1	8.8	9.3	9.5	9.9	11.0	12.2	12.4	10.4	10.0	9.5	10.5	10.4	10.5	30 *
Not cesarean	5.2	5.6	5.4	5.3	5.3	5.6	5.6	5.3	5.0	5.0	5.0	4.8	4.7	4.8	-8
Birth weight															
Less than 2,500 grams															
Less than 1,500 grams															
1,500-2,499 grams															
2,500 grams or more															
Gestational age															
Less than 37 weeks	31.6	34.9	35.4	35.7	35.8	35.3	36.9	35.3	33.0	31.3	30.4	30.9	31.4	32.3	2
Less than 32 weeks	65.4	72.5	72.3	71.3	67.3	66.7	68.3	69.9	68.0	70.5	69.6	71.2	70.5	70.0	7
32-36 weeks	25.4	27.4	27.7	28.8	28.3	27.9	29.7	28.1	25.8	22.7	22.3	23.4	24.2	25.7	1
37 weeks or more	2.6	2.6	2.3	2.4	2.6	3.1	3.0	2.9	2.6	2.7	2.7	2.7	2.6	2.5	-4
Age of mother															
Under 20 years	6.6	7.7	7.8	8.8	7.9	8.6	8.1	8.1	7.1	6.5	6.9	6.6	6.2	6.5	-1
Under 18 years	7.1	8.2	9.0	10.0	9.6	9.7	9.1	8.8	8.3	7.5	8.1	7.2	7.1	7.1	1
18-19 years	6.3	7.3	7.1	8.1	6.8	7.9	7.5	7.8	6.4	5.9	6.3	6.3	5.7	6.2	-1
20 years and over	5.8	6.3	6.1	5.8	6.0	6.4	6.7	6.4	5.9	6.0	5.9	6.1	6.1	6.2	7
20-24 years	5.6	5.8	6.0	6.2	6.4	6.4	6.3	6.2	5.6	5.7	5.5	5.8	5.8	5.6	0
25-29 years	5.2	5.7	5.4	4.8	5.2	6.3	7.1	6.6	5.7	5.6	5.7	5.9	5.9	6.3	21
30-34 years	6.6	7.4	6.7	6.1	5.6	5.4	6.4	6.7	6.3	6.4	6.0	6.4	6.6	6.7	1
35 years and over	7.2	7.5	7.2	6.7	8.2	8.3	8.1	6.7	7.2	7.7	7.9	8.1	7.3	7.6	5
Age/Education															
<20, less than appropriate		6.2	5.7	6.9	5.8	6.6	6.7	7.4	6.6	7.0	7.7	6.9	5.5	5.3	
<20, appropriate	7.2	8.5	9.1	9.8	9.0	9.9	9.3	8.9	7.4	5.7	5.8	6.1	6.9	7.4	3
20+, <12 years of education	6.8	6.9	6.4	5.2	6.1	6.1	6.8	6.5	6.0	6.2	5.9	5.9	5.5	5.6	-18
20+, 12 years of education	5.5	5.4	5.8	6.1	6.2	6.5	6.7	6.5	5.9	5.8	6.0	6.2	6.6	6.4	15
20+, 13+ years of education	5.3	6.6	6.0	6.0	5.7	6.3	6.4	6.2	5.7	5.6	5.8	6.6	7.1	7.4	39 *

Table 15. Percent low birth weight by selected characteristics of infant and mother among Hispanics, three-year moving averages: Indiana, 1990-2005

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	Percent Change
Characteristics	-1992	-1993	-1994	-1995	-1996	-1997	-1998	-1999	-2000	-2001	-2002	-2003	-2004	-2005	1990-1992 to 2003-2005
Educational attainment															
Less than 12 years	6.7	7.1	6.8	6.5	6.8	6.8	7.2	7.0	6.4	6.3	6.2	6.1	5.6	5.8	-14
0-8 years	6.5	6.3	5.7	4.5	5.0	5.2	6.3	6.2	5.6	5.8	5.9	5.9	5.5	5.4	-17
9-11 years	6.8	7.4	7.4	7.6	8.0	7.9	7.9	7.6	7.0	6.8	6.5	6.3	5.8	6.1	-10
12 years	5.8	5.9	6.3	6.6	6.5	6.9	7.0	6.7	5.9	5.7	5.8	6.1	6.5	6.4	11
More than 12 years	5.2	6.6	6.0	6.0	5.6	6.4	6.4	6.2	5.7	5.6	5.8	6.5	7.0	7.3	39 *
13-15 years	5.7	7.0	6.0	6.1	5.6	6.2	6.4	6.0	5.6	5.1	5.8	6.7	7.2	7.5	30
16 years and over		5.4	5.9	5.8	5.6	6.7	6.4	6.6	5.9	6.5	5.8	6.3	6.9	6.9	
Live-birth order															
First	6.4	7.2	7.1	7.3	6.8	7.4	7.6	7.7	7.0	6.8	6.8	6.9	6.7	7.0	9
Second	5.4	5.7	5.2	5.6	5.9	6.2	6.0	5.7	5.1	4.9	4.9	5.3	5.6	5.4	1
Third	5.7	6.7	6.9	6.1	5.7	5.8	6.4	6.1	5.3	5.5	5.9	6.2	5.9	5.5	-2
Fourth+	6.5	6.4	6.8	6.1	7.5	7.4	7.8	6.8	6.5	6.8	6.4	6.3	6.3	7.4	13
Marital status															
Married	5.5	5.7	4.9	4.8	5.0	5.6	5.8	5.8	5.3	5.5	5.5	5.9	5.8	5.9	7
Unmarried	6.7	8.0	8.8	8.7	8.4	8.5	8.5	8.0	7.0	6.6	6.6	6.5	6.5	6.6	-2
Trimester prenatal care began															
First trimester	5.8	6.5	6.3	6.3	6.5	7.0	7.1	6.9	6.0	5.7	5.7	6.2	6.2	6.3	10
After first trimester	5.6	5.7	5.5	5.6	5.3	5.8	5.7	5.6	5.3	5.7	5.8	5.3	5.0	5.2	-7
Second trimester	6.0	6.1	6.0	6.3	5.7	6.2	6.1	5.7	5.6	6.1	6.2	5.6	5.2	5.3	-11
Third trimester						4.2	4.5	5.0	4.1	4.3	4.2	4.3	4.5	4.7	
No care					17.5		16.4	13.6	12.0	14.8	16.5	19.9	20.6	17.6	
Unknown				12.1	10.2	9.4	13.1	14.7	14.7	12.9	12.4	13.0	14.1	15.2	
Prenatal care index <sup>1</sup>															
Adequate plus	11.9	14.4	13.3	13.2	12.6	14.2	14.6	14.3	12.7	11.6	10.9	11.3	11.6	12.1	2
Adequate	3.1	3.0	3.5	4.1	4.6	4.4	3.8	3.3	3.0	3.3	3.6	3.7	3.8	3.7	17
Intermediate	4.1	4.7	3.5	3.2	2.6	3.6	3.8	4.2	3.4	3.8	3.8	4.0	3.8	3.5	-15
Inadequate	4.9	4.6	4.7	4.5	4.9	5.0	5.4	5.0	4.9	5.0	5.1	4.9	4.6	4.8	-2
No care					17.5		16.4	13.6	12.0	14.8	16.5	19.9	20.6	17.6	
Unknown	12.8	10.8	9.8	8.4	8.0	8.4	10.1	11.2	11.0	11.0	10.9	10.6	11.1	11.8	-8
Maternal smoking															
Smoking	10.3	11.9	12.5	10.8	10.9	10.7	11.8	9.9	9.0	7.5	8.1	8.5	10.6	10.2	-1
Not smoking	5.4	5.8	5.7	6.0	6.0	6.4	6.6	6.5	5.9	6.0	5.9	6.1	6.0	6.1	15 *

Based on APNCU index (Kotelchuck, M., Am J Public Health 1994;84:1414-1420).

Note: Low birth weight is birth weight of less than 2,500 grams

<sup>...</sup> Category not applicable

<sup>--</sup> Figure does not meet standard of reliablity or precision; based on fewer than 20 births in the numerator

<sup>\*</sup>Significant at p<0.05.

Table 16. Percent preterm birth by selected characteristics of infant and mother among all races, three-year moving averages; Indiana, 1990-2005

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	Percent Change
Characteristics	-1992	-1993	-1994	-1995	-1996	-1997	-1998	-1999	-2000	-2001	-2002	-2003	-2004	-2005	1990-1992 to 2003-2009
All	10.4	10.7	10.8	11.0	11.0	11.2	11.4	11.8	12.0	12.3	12.5	12.9	13.2	13.5	30 *
Plurality															
Single births	9.4	9.6	9.8	9.8	9.8	9.9	10.1	10.3	10.5	10.6	10.8	11.1	11.3	11.6	23 *
Multiple births	49.2	51.1	51.2	52.8	53.9	55.4	56.1	57.6	58.9	61.1	61.6	63.0	64.3	65.9	34 *
Method of delivery															
Cesarean	13.8	14.2	14.6	15.1	15.5	16.1	16.6	17.2	17.6	18.2	18.3	18.7	19.0	19.6	42 *
Not cesarean	9.4	9.6	9.8	9.8	9.8	9.8	10.0	10.3	10.5	10.5	10.7	10.9	11.0	11.1	18 *
Birth weight															
Less than 2,500 grams	61.4	62.3	63.0	62.6	62.1	61.7	62.4	63.2	64.5	65.6	66.3	66.6	66.9	67.4	10 *
Less than 1,500 grams	96.1	96.5	97.1	97.0	96.6	96.4	96.4	96.7	96.7	96.9	97.4	97.6	97.5	97.4	1 *
1,500-2,499 grams	53.9	54.8	55.4	55.0	54.6	54.4	55.1	56.0	57.4	58.5	59.3	59.7	60.2	60.9	13 *
2,500 grams or more	6.7	6.9	6.9	6.9	6.8	6.8	7.0	7.3	7.5	7.8	8.0	8.3	8.4	8.6	28 *
Gestational age															
Less than 37 weeks															
Less than 32 weeks															
32-36 weeks															
37 weeks or more															•••
Age of mother															
Under 20 years	13.7	13.8	13.8	13.5	13.5	13.4	13.7	13.8	14.1	14.1	14.2	14.2	14.5	15.0	9 *
Under 18 years	16.3	16.2	16.1	15.8	15.4	15.3	15.6	15.8	16.1	16.1	16.1	16.0	16.2	16.4	1
18-19 years	12.3	12.4	12.5	12.2	12.4	12.3	12.6	12.7	13.1	13.2	13.3	13.4	13.7	14.4	17 *
20 years and over	9.8	10.1	10.3	10.5	10.5	10.7	11.0	11.4	11.7	12.0	12.2	12.6	12.9	13.2	35 *
20-24 years	10.6	10.8	10.9	11.0	10.9	11.0	11.1	11.5	11.7	12.0	12.4	12.8	13.0	13.2	25 *
25-29 years	8.9	9.3	9.5	9.7	9.7	10.0	10.4	10.8	11.1	11.3	11.6	11.9	12.2	12.4	39 *
30-34 years	9.4	9.8	10.0	10.2	10.3	10.5	10.9	11.2	11.5	11.8	11.9	12.5	12.9	13.4	43 *
35 years and over	11.7	11.9	12.0	12.0	12.4	12.5	12.6	13.2	13.6	14.2	14.2	14.6	14.9	15.4	32 *
Age/Education															
<20, less than appropriate	12.8	13.1	13.2	12.8	12.9	12.9	13.1	13.0	13.3	13.5	13.9	14.3	14.5	14.9	16 *
<20, appropriate	14.0	13.9	14.0	13.7	13.7	13.5	13.9	14.0	14.3	14.3	14.3	14.1	14.5	15.0	7 *
20+, <12 years of education	12.4	12.6	12.5	12.6	12.2	12.6	12.6	13.0	13.1	13.1	13.3	13.7	14.0	14.1	14 *
20+, 12 years of education	10.0	10.4	10.7	11.0	11.0	11.3	11.5	11.9	12.2	12.7	13.0	13.5	13.7	14.2	41 *
, ,															• •

Table 16. Percent preterm birth by selected characteristics of infant and mother among all races, three-year moving averages: Indiana, 1990-2005--Con.

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	Percent Change
Characteristics	-1992	-1993	-1994	-1995	-1996	-1997	-1998	-1999	-2000	-2001	-2002	-2003	-2004	-2005	1990-1992 to 2003-2005
Educational attainment															
Less than 12 years	13.4	13.5	13.5	13.5	13.1	13.3	13.4	13.7	13.8	13.7	13.9	14.2	14.5	14.6	9 *
0-8 years	12.1	12.0	12.2	11.5	11.4	11.2	11.3	11.1	11.0	11.1	11.2	11.4	11.7	12.1	0
9-11 years	13.6	13.9	13.8	13.9	13.5	13.7	13.9	14.3	14.5	14.4	14.7	15.0	15.3	15.4	13 *
12 years	10.2	10.5	10.8	11.0	11.2	11.4	11.7	12.0	12.3	12.7	13.0	13.3	13.7	14.2	38 *
More than 12 years	8.7	9.0	9.2	9.4	9.6	9.7	10.0	10.4	10.8	11.1	11.3	11.8	12.1	12.4	42 *
13-15 years	9.4	9.7	9.9	10.2	10.3	10.4	10.6	11.0	11.3	11.7	12.0	12.5	12.8	13.2	41 *
16 years and over	7.9	8.2	8.4	8.6	8.8	8.9	9.4	9.8	10.2	10.4	10.6	11.0	11.3	11.6	46 *
Live-birth order															
First	10.5	10.6	10.7	10.7	10.7	10.9	11.3	11.5	11.7	11.8	12.0	12.2	12.4	12.7	21 *
Second	9.6	9.9	10.1	10.2	10.3	10.3	10.5	10.9	11.3	11.5	11.8	12.1	12.5	12.7	32 *
Third	10.5	10.8	11.1	11.4	11.3	11.4	11.6	12.1	12.3	12.7	12.8	13.5	13.7	14.2	35 *
Fourth+	12.7	13.0	13.0	13.5	13.5	13.9	13.7	14.2	14.5	15.1	15.3	15.9	16.3	16.7	31 *
Marital status															
Married	8.8	9.0	9.2	9.4	9.4	9.7	10.0	10.4	10.7	11.1	11.3	11.7	12.0	12.3	40 *
Unmarried	14.6	14.5	14.5	14.3	14.2	14.1	14.2	14.3	14.4	14.4	14.5	14.7	15.0	15.3	4 *
Trimester prenatal care began															
First trimester	9.4	9.8	10.0	10.2	10.2	10.4	10.7	11.1	11.4	11.8	12.0	12.3	12.6	13.0	38 *
After first trimester	12.2	12.1	12.2	12.5	12.3	12.3	12.4	12.6	12.7	12.7	13.1	13.4	13.5	13.4	10 *
Second trimester	12.5	12.4	12.5	12.7	12.5	12.5	12.6	12.8	13.0	13.1	13.3	13.6	13.9	13.9	11 *
Third trimester	10.3	10.5	10.6	11.5	10.9	11.2	11.0	11.6	11.2	11.0	11.7	11.9	11.4	11.1	7
No care	27.3	27.0	28.9	29.0	30.5	30.6	30.3	29.2	28.3	29.1	29.5	31.7	32.0	31.4	15 *
Unknown	22.2	22.4	19.9	19.7	19.2	19.2	20.2	22.3	25.1	25.7	27.9	28.1	30.0	28.8	30 *
Prenatal care index <sup>1</sup>															
Adequate plus	26.0	27.2	27.6	27.3	26.4	25.7	25.2	25.4	25.8	26.5	26.7	27.3	27.8	28.4	9 *
Adequate	3.9	3.9	3.8	3.6	3.5	3.4	3.3	3.3	3.3	3.5	3.6	3.7	3.9	4.1	6 *
Intermediate	3.1	3.3	3.3	3.5	3.6	3.7	3.8	3.8	3.8	4.0	4.3	4.5	4.5	4.5	45 *
Inadequate	11.8	11.9	12.0	12.3	12.1	12.1	11.9	12.2	12.2	12.1	12.4	12.6	12.5	12.4	5 *
No care	27.3	27.0	28.9	29.0	30.5	30.6	30.3	29.2	28.3	29.1	29.5	31.7	32.0	31.4	15 *
Unknown	21.9	22.1	20.2	19.7	18.9	18.5	19.2	21.0	23.4	24.1	25.0	25.1	26.7	26.1	20 *
Maternal smoking															
Smoking	12.2	12.5	12.6	12.9	12.9	13.1	13.2	13.5	13.8	13.9	14.2	14.7	15.2	15.3	25 *
Not smoking	9.7	10.0	10.2	10.3	10.4	10.5	10.8	11.2	11.5	11.8	12.0	12.4	12.6	13.0	34 *

Based on APNCU index (Kotelchuck, M., Am J Public Health 1994;84:1414-1420). ... Category not applicable \*Significant at p<0.05.

Note: Preterm birth is less than 37 completed weeks of gestation.

Table 17. Percent preterm births by selected characteristics of infant and mother among whites, three-year moving averages: Indiana, 1990-2005

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	Percent Change
Characteristics	-1992	-1993	-1994	-1995	-1996	-1997	-1998	-1999	-2000	-2001	-2002	-2003	-2004	-2005	1990-1992 to 2003-2005
All	9.3	9.7	9.9	10.1	10.1	10.3	10.6	11.0	11.3	11.6	11.8	12.2	12.5	12.8	37 *
Plurality															
Single births	8.4	8.6	8.8	8.9	8.9	9.0	9.2	9.5	9.7	9.9	10.1	10.4	10.6	10.9	30 *
Multiple births	48.3	50.9	50.8	52.9	53.7	55.2	55.6	56.9	58.1	60.6	61.2	62.8	64.1	65.8	36 *
Method of delivery															
Cesarean	12.9	13.5	13.9	14.5	14.9	15.5	15.9	16.6	17.0	17.5	17.6	18.0	18.3	18.9	46 *
Not cesarean	8.3	8.6	8.7	8.9	8.8	8.9	9.1	9.5	9.7	9.8	9.9	10.2	10.4	10.5	26 *
Birth weight															
Less than 2,500 grams	60.8	62.2	62.8	62.6	61.9	61.6	62.1	62.8	64.1	65.5	66.4	66.9	67.2	67.7	11 *
Less than 1,500 grams	95.9	96.5	97.1	97.0	96.4	96.1	95.9	96.3	96.6	96.9	97.3	97.6	97.6	97.4	2 *
1,500-2,499 grams	53.9	55.0	55.7	55.4	54.9	54.6	55.2	56.0	57.4	58.8	59.8	60.5	60.9	61.7	14 *
2,500 grams or more	6.1	6.2	6.4	6.4	6.4	6.4	6.5	6.8	7.1	7.4	7.6	7.9	8.1	8.3	36 *
Gestational age															
Less than 37 weeks															
Less than 32 weeks															
32-36 weeks															
37 weeks or more															
Age of mother															
Under 20 years	11.9	12.0	12.1	12.2	12.2	12.0	12.3	12.4	12.8	12.8	12.9	13.0	13.4	14.0	18 *
Under 18 years	13.9	13.7	13.8	13.8	13.6	13.4	13.8	14.0	14.5	14.3	14.5	14.5	14.7	15.3	9 *
18-19 years	10.9	11.1	11.3	11.3	11.4	11.3	11.5	11.6	12.0	12.1	12.3	12.3	12.9	13.6	24 *
20 years and over	9.0	9.3	9.5	9.7	9.8	10.0	10.3	10.7	11.0	11.3	11.6	12.1	12.3	12.6	41 *
20-24 years	9.5	9.8	9.9	10.1	10.1	10.2	10.2	10.6	10.8	11.2	11.6	12.1	12.3	12.4	31 *
25-29 years	8.2	8.6	8.8	9.1	9.0	9.3	9.8	10.3	10.6	10.8	11.0	11.3	11.5	11.8	44 *
30-34 years	8.7	9.2	9.4	9.5	9.6	9.9	10.4	10.8	11.0	11.3	11.5	12.1	12.6	13.0	48 *
35 years and over	10.7	10.9	11.2	11.3	11.6	11.6	11.5	12.3	12.8	13.5	13.7	14.0	14.3	14.7	37 *
Age/Education															
<20, less than appropriate	11.5	11.8	11.9	11.8	12.0	12.1	12.3	12.3	12.5	12.6	13.1	13.8	13.9	14.3	24 *
<20, appropriate	12.0	12.0	12.2	12.3	12.2	12.0	12.2	12.4	12.9	12.7	12.8	12.6	13.2	13.9	16 *
20+, <12 years of education	11.1	11.4	11.3	11.5	11.2	11.6	11.7	12.1	12.2	12.2	12.5	12.8	13.1	13.2	19 *
20+, 12 years of education	9.1	9.5	9.8	10.1	10.2	10.4	10.6	11.1	11.4	11.9	12.3	12.8	13.1	13.4	48 *
20+, 13+ years of education	8.1	8.4	8.7	8.9	9.1	9.2	9.6	10.0	10.3	10.6	10.9	11.3	11.6	11.9	48 *

Table 17. Percent preterm births by selected characteristics of infant and mother among whites, three-year moving averages: Indiana, 1990-2005--Con.

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	Percent Change
Characteristics	-1992	-1993	-1994	-1995	-1996	-1997	-1998	-1999	-2000	-2001	-2002	-2003	-2004	-2005	1990-1992 to 2003-2005
Educational attainment															
Less than 12 years	11.7	12.0	12.0	12.1	11.8	12.0	12.2	12.5	12.6	12.6	12.9	13.2	13.4	13.6	16 *
0-8 years	10.8	10.8	11.0	10.6	10.6	10.4	10.6	10.4	10.4	10.5	10.8	11.1	11.3	11.7	8
9-11 years	11.9	12.2	12.2	12.4	12.1	12.4	12.6	13.1	13.3	13.3	13.6	14.0	14.2	14.4	21 *
12 years	9.2	9.6	9.9	10.2	10.3	10.5	10.7	11.1	11.5	11.9	12.2	12.6	13.0	13.4	45 *
More than 12 years	8.1	8.5	8.7	8.9	9.1	9.2	9.6	10.0	10.3	10.7	10.9	11.3	11.6	12.0	48 *
13-15 years	8.4	8.8	9.2	9.5	9.5	9.7	9.9	10.3	10.6	11.0	11.3	11.8	12.1	12.5	48 *
16 years and over	7.7	8.0	8.2	8.3	8.6	8.7	9.3	9.6	10.1	10.3	10.5	10.9	11.2	11.4	49 *
Live-birth order															
First	9.6	9.9	10.0	10.1	10.1	10.3	10.7	10.9	11.2	11.3	11.5	11.7	11.9	12.2	27 *
Second	8.7	9.0	9.3	9.5	9.6	9.6	9.8	10.3	10.6	10.9	11.2	11.5	12.0	12.2	40 *
Third	9.3	9.6	10.0	10.2	10.3	10.4	10.7	11.2	11.5	12.0	12.2	12.9	13.0	13.4	45 *
Fourth+	10.6	10.9	10.8	11.4	11.5	11.9	11.7	12.3	12.7	13.5	13.8	14.5	14.9	15.4	45 *
Marital status															
Married	8.5	8.8	9.0	9.2	9.3	9.5	9.8	10.2	10.5	10.9	11.2	11.6	11.8	12.1	42 *
Unmarried	12.3	12.4	12.5	12.5	12.4	12.3	12.5	12.8	12.9	12.9	13.1	13.4	13.8	14.1	15 *
Trimester prenatal care began															
First trimester	8.7	9.2	9.4	9.6	9.6	9.8	10.1	10.5	10.9	11.2	11.4	11.8	12.1	12.5	43 *
After first trimester	10.6	10.5	10.7	11.0	10.9	10.9	11.0	11.3	11.5	11.7	12.1	12.4	12.5	12.5	18 *
Second trimester	10.9	10.8	10.9	11.2	11.1	11.1	11.2	11.5	11.8	12.0	12.3	12.6	12.9	12.9	19 *
Third trimester	9.0	9.1	9.4	10.2	9.7	10.0	9.7	10.1	9.8	10.1	11.0	11.5	10.6	10.5	17 *
No care	20.5	20.3	22.5	23.2	24.6	25.1	25.0	24.7	23.5	24.8	26.0	28.9	29.7	28.6	39 *
Unknown	20.8	20.5	18.6	18.5	18.4	17.8	19.3	20.8	23.9	24.0	27.6	27.4	30.2	28.7	*
Prenatal care index <sup>1</sup>															
Adequate plus	24.9	26.2	26.5	26.4	25.5	24.8	24.4	24.7	25.1	25.7	25.9	26.5	27.0	27.6	11 *
Adequate	3.5	3.4	3.4	3.3	3.2	3.1	3.1	3.0	3.1	3.2	3.3	3.5	3.7	3.8	10 *
Intermediate	2.6	2.7	2.9	3.0	3.1	3.2	3.2	3.2	3.2	3.4	3.7	4.0	4.1	4.1	58 *
Inadequate	10.3	10.3	10.4	10.8	10.8	10.8	10.6	10.8	10.9	11.1	11.5	11.9	11.7	11.6	13 *
No care	20.5	20.3	22.5	23.2	24.6	25.1	25.0	24.7	23.5	24.8	26.0	28.9	29.7	28.6	39 *
Unknown	21.0	20.9	19.3	18.5	17.8	17.2	18.2	19.8	22.2	22.9	24.2	24.1	25.9	25.3	20 *
Maternal smoking															
Smoking	11.2	11.6	11.7	11.9	12.0	12.3	12.4	12.8	13.1	13.2	13.5	14.0	14.5	14.7	31 *
Not smoking	8.6	9.0	9.2	9.4	9.5	9.6	9.9	10.4	10.7	11.0	11.3	11.7	11.9	12.3	43 *

Based on APNCU index (Kotelchuck, M., Am J Public Health 1994;84:1414-1420).

<sup>...</sup> Category not applicable
\*Significant at p<0.05.
Note: Preterm birth is less than 37 completed weeks of gestation.

Table 18. Percent preterm births by selected characteristics of infant and mother among blacks, three-year moving averages; Indiana, 1990-2005

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	Percent Change
Characteristics	-1992	-1993	-1994	-1995	-1996	-1997	-1998	-1999	-2000	-2001	-2002	-2003	-2004	-2005	1990-1992 to 2003-200
All	18.8	18.6	18.5	18.3	18.4	18.5	18.6	18.4	18.4	18.4	18.5	18.6	18.9	19.0	1
Plurality															
Single births	17.8	17.7	17.4	17.3	17.1	17.2	17.1	16.8	16.7	16.6	16.6	16.7	17.0	17.1	-4 *
Multiple births	55.6	52.8	54.2	52.5	56.1	57.1	60.8	63.1	64.6	65.0	64.2	65.4	66.2	68.3	23 *
Method of delivery															
Cesarean	20.7	20.4	20.5	20.3	21.2	21.5	22.4	22.4	22.9	23.8	24.0	25.0	25.0	25.4	23 *
Not cesarean	18.3	18.1	17.9	17.6	17.4	17.6	17.5	17.3	17.1	16.7	16.6	16.3	16.5	16.4	-10 *
Birth weight															
Less than 2,500 grams	63.4	63.3	64.3	63.0	63.2	63.0	64.7	65.8	66.8	66.6	66.4	66.3	66.6	67.1	6 *
Less than 1,500 grams	96.3	96.4	96.9	97.2	97.3	97.7	98.1	98.1	97.1	97.1	97.4	97.4	97.6	97.7	1
1,500-2,499 grams	53.7	53.9	54.8	53.8	53.7	53.8	55.7	56.9	58.1	57.7	57.8	57.4	57.8	57.9	8 *
2,500 grams or more	12.4	12.1	11.8	11.6	11.3	11.3	11.0	10.9	10.9	11.1	11.2	11.2	11.3	11.4	-8 *
Gestational age															
Less than 37 weeks															
Less than 32 weeks															
32-36 weeks															
37 weeks or more															
Age of mother															
Under 20 years	20.4	20.1	19.9	18.8	19.0	19.0	19.5	19.5	19.4	19.4	19.3	19.2	19.2	19.0	-7 *
Under 18 years	22.5	22.6	22.5	21.6	20.9	21.3	21.5	22.0	21.3	21.5	21.1	21.1	21.4	20.4	-10
18-19 years	18.7	17.9	17.7	16.4	17.4	17.1	17.9	17.7	18.2	18.1	18.2	18.0	17.9	18.1	-3
20 years and over	18.1	18.1	18.0	18.0	18.0	18.2	18.1	18.0	18.0	18.0	18.1	18.4	18.7	18.9	5 *
20-24 years	18.0	17.7	17.3	17.2	16.6	16.7	16.8	17.0	17.2	17.1	17.3	17.5	17.5	17.9	-1
25-29 years	17.1	17.3	17.7	17.6	17.7	18.1	17.9	17.4	16.9	17.2	18.0	18.4	19.0	18.3	7
30-34 years	18.1	18.5	18.8	19.6	19.7	19.4	18.5	18.1	18.9	19.5	19.2	19.0	19.1	20.2	12 *
35 years and over	23.4	22.8	21.5	20.9	22.9	23.6	25.1	24.7	24.3	23.1	21.0	21.9	22.4	24.1	3
Age/Education															
<20, less than appropriate	21.2	21.3	20.7	18.6	18.3	18.1	18.2	17.9	18.6	18.7	19.3	17.9	18.5	18.4	-13
<20, appropriate	20.3	19.7	19.6	18.7	18.9	19.0	19.7	19.9	19.6	19.6	19.3	19.4	19.3	19.0	-6
20+, <12 years of education	21.8	21.5	20.6	20.9	20.0	20.3	20.1	19.6	20.0	19.0	19.7	20.2	21.1	20.8	-5
20+, 12 years of education	18.3	18.3	18.5	18.6	18.9	19.1	19.0	18.6	18.3	18.3	18.4	18.5	18.5	19.1	5
20+, 13+ years of education	15.8	15.9	15.8	15.9	16.0	16.2	16.1	16.1	16.3	16.9	17.0	17.4	17.6	17.7	12 *

Table 18. Percent preterm births by	y selected characteristics of infant and mother among	g blacks, three-year moving av	verages: Indiana, 1990-2005
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	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	Percent Change
Characteristics	-1992	-1993	-1994	-1995	-1996	-1997	-1998	-1999	-2000	-2001	-2002	-2003	-2004	-2005	1990-1992 to 2003-2005
Educational attainment															
Less than 12 years	21.7	21.6	21.1	20.7	19.9	20.2	20.1	20.0	20.1	19.7	20.1	20.1	20.7	20.2	-7 *
0-8 years	26.5	27.0	26.0	22.9	21.3	21.9	22.6	24.2	23.5	23.9	21.5	21.1	22.6	22.7	-14
9-11 years	21.3	21.2	20.7	20.5	19.8	20.0	20.0	19.8	19.9	19.5	20.0	20.1	20.6	20.1	-6
12 years	18.1	17.9	18.1	17.8	18.5	18.6	18.9	18.5	18.3	18.2	18.2	18.3	18.3	18.9	4
More than 12 years	16.1	16.1	15.8	15.8	15.9	16.1	16.0	16.1	16.2	16.9	17.0	17.5	17.6	17.7	11 *
13-15 years	16.6	16.4	16.0	16.0	16.4	16.7	16.6	16.8	16.9	17.6	17.5	18.1	18.2	18.4	11 *
16 years and over	13.8	14.8	15.2	15.2	14.3	14.2	14.3	14.1	14.4	14.8	15.6	15.8	16.3	16.2	17 *
Live-birth order															
First	17.9	17.3	17.1	16.5	16.6	16.7	17.0	16.9	16.6	16.7	16.9	17.1	17.5	17.2	-4
Second	17.8	17.7	17.5	16.9	17.1	17.3	17.2	16.8	17.2	17.6	17.9	18.0	17.9	18.1	2
Third	19.2	19.5	19.5	20.0	19.5	19.2	19.0	19.1	18.8	18.3	17.6	18.0	18.5	19.7	2
Fourth+	22.3	22.7	22.6	23.0	23.2	24.2	24.0	23.6	23.2	22.8	22.8	22.8	23.1	23.1	4
Marital status															
Married	15.3	15.2	14.6	14.3	14.4	15.1	15.5	15.9	15.6	16.2	16.2	16.7	17.4	17.8	17 *
Unmarried	19.9	19.7	19.6	19.4	19.4	19.4	19.4	19.1	19.1	19.0	19.1	19.1	19.2	19.3	-3
Trimester prenatal care began															
First trimester	16.7	16.5	16.8	16.5	16.7	16.6	16.9	16.8	17.0	17.3	17.5	17.7	17.9	18.2	9 *
After first trimester	19.0	19.0	19.0	19.1	18.6	19.1	18.7	18.8	18.5	18.0	18.0	18.0	18.3	18.0	-5
Second trimester	19.7	19.7	19.8	19.6	19.2	19.5	19.2	19.1	18.8	18.7	18.7	18.9	19.0	18.9	-4
Third trimester	15.4	15.8	15.2	16.5	15.6	16.8	16.4	17.7	17.0	15.0	14.8	14.3	15.1	14.1	-9
No care	39.8	39.3	40.6	41.0	43.0	42.6	41.1	39.2	39.1	39.4	36.9	37.3	36.6	37.3	-6
Unknown	28.6	31.2	26.6	26.0	23.5	25.8	26.5	31.3	33.0	34.2	33.5	36.1	34.3	33.6	18 *
Prenatal care index <sup>1</sup>															
Adequate plus	36.0	36.4	36.8	35.3	33.9	32.8	32.4	31.6	31.7	32.4	33.4	33.7	34.1	34.4	-4
Adequate	9.4	9.1	8.8	7.8	7.2	7.1	7.0	6.8	6.5	6.6	6.6	6.9	7.0	7.1	-25 *
Intermediate	7.4	7.1	6.7	6.8	7.3	8.0	8.1	8.2	8.6	8.8	8.1	7.8	7.4	7.8	6
Inadequate	17.4	17.7	17.9	18.2	17.7	17.9	17.3	17.7	17.3	16.6	16.5	16.2	16.7	16.2	-7
No care	39.8	39.3	40.6	41.0	43.0	42.6	41.1	39.2	39.1	39.4	36.9	37.3	36.6	37.3	-6
Unknown	25.7	26.9	23.9	24.0	22.7	23.4	24.1	26.6	28.9	29.3	29.6	31.7	33.0	32.5	26 *
Maternal smoking															
Smoking	22.1	22.5	22.7	23.3	23.2	22.8	22.1	21.9	22.5	21.9	21.9	21.6	21.8	21.4	-3
Not smoking	17.8	17.6	17.4	17.1	17.2	17.5	17.7	17.6	17.5	17.7	17.7	18.0	18.2	18.5	4 *

Based on APNCU index (Kotelchuck, M., Am J Public Health 1994;84:1414-1420). ... Category not applicable \*Significant at p<0.05.

Note: Preterm birth is less than 37 completed weeks of gestation.

Table 19. Percent preterm births by selected characteristics of infant and mother among non-Hispanic whites, three-year moving averages: Indiana, 1990-2005

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	Percent Change
Characteristics	-1992	-1993	-1994	-1995	-1996	-1997	-1998	-1999	-2000	-2001	-2002	-2003	-2004	-2005	1990-1992 to 2003-2009
All	9.3	9.6	9.8	10.0	10.1	10.2	10.5	10.9	11.3	11.5	11.8	12.2	12.5	12.8	38 *
Plurality															
Single births	8.3	8.5	8.8	8.9	8.9	8.9	9.2	9.4	9.7	9.8	10.0	10.3	10.5	10.8	30 *
Multiple births	48.2	50.8	50.6	52.8	53.7	55.5	55.8	57.1	58.4	61.1	61.7	63.1	64.4	66.3	38 *
Method of delivery															
Cesarean	12.9	13.5	13.8	14.4	14.8	15.4	15.9	16.6	17.1	17.6	17.8	18.2	18.6	19.1	48 *
Not cesarean	8.3	8.5	8.7	8.8	8.8	8.8	9.1	9.4	9.6	9.7	9.9	10.1	10.3	10.4	26 *
Birth weight															
Less than 2,500 grams	60.8	62.1	62.6	62.4	61.8	61.6	62.0	62.8	64.3	65.8	66.8	67.2	67.5	67.9	12 *
Less than 1,500 grams	95.9	96.5	97.0	97.0	96.4	96.1	95.9	96.2	96.6	96.9	97.4	97.6	97.6	97.5	2 *
1,500-2,499 grams	53.9	55.0	55.5	55.3	54.8	54.7	55.2	56.2	57.6	59.2	60.3	61.0	61.3	62.0	15 *
2,500 grams or more	6.0	6.2	6.3	6.4	6.3	6.3	6.5	6.8	7.1	7.3	7.6	7.8	8.0	8.2	36 *
Gestational age															
Less than 37 weeks															
Less than 32 weeks															
32-36 weeks															
37 weeks or more															
Age of mother															
Under 20 years	11.9	11.9	12.1	12.1	12.1	11.9	12.1	12.3	12.8	12.8	12.9	12.8	13.3	13.9	17 *
Under 18 years	14.0	13.7	13.7	13.6	13.4	13.2	13.6	13.9	14.6	14.4	14.3	14.2	14.6	15.1	8
18-19 years	10.9	11.1	11.2	11.2	11.3	11.2	11.4	11.5	12.0	12.1	12.2	12.2	12.8	13.4	23 *
20 years and over	8.9	9.2	9.5	9.7	9.7	9.9	10.2	10.7	11.0	11.3	11.6	12.0	12.3	12.7	42 *
20-24 years	9.5	9.7	9.8	10.1	10.1	10.1	10.2	10.6	10.9	11.2	11.6	12.0	12.3	12.5	32 *
25-29 years	8.2	8.5	8.8	9.1	9.0	9.3	9.8	10.3	10.6	10.8	11.0	11.3	11.5	11.8	45 *
30-34 years	8.6	9.1	9.3	9.4	9.5	9.9	10.3	10.7	11.0	11.3	11.5	12.1	12.6	13.0	51 *
35 years and over	10.6	10.8	11.1	11.3	11.6	11.5	11.5	12.2	12.7	13.4	13.7	14.0	14.3	14.7	38 *
Age/Education															
<20, less than appropriate	11.6	11.8	11.8	11.7	11.9	12.0	12.3	12.3	12.6	12.5	12.8	13.4	13.8	14.3	24 *
<20, appropriate	12.0	11.9	12.1	12.2	12.1	11.8	12.1	12.3	12.8	12.8	12.8	12.5	13.1	13.7	15 *
20+, <12 years of education	11.1	11.3	11.2	11.5	11.1	11.6	11.7	12.2	12.3	12.4	12.6	13.0	13.4	13.6	22 *
20+, 12 years of education	9.0	9.5	9.8	10.1	10.1	10.3	10.6	11.0	11.4	11.9	12.3	12.9	13.2	13.5	50 *
20+, 13+ years of education	8.0	8.4	8.6	8.8	9.0	9.2	9.6	10.0	10.3	10.6	10.9	11.3	11.6	11.9	49 *

Table 19. Percent preterm births b	v selected characteristics of infar	nt and mother among non-His	panic whites, three-ve	ear moving averages: Ind	ana. 1990-2005Con.

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	Percent Change
Characteristics	-1992	-1993	-1994	-1995	-1996	-1997	-1998	-1999	-2000	-2001	-2002	-2003	-2004	-2005	1990-1992 to 2003-2005
Educational attainment															
Less than 12 years	11.7	11.9	11.9	12.0	11.7	12.0	12.2	12.6	12.8	12.7	13.0	13.3	13.7	13.9	19 *
0-8 years	10.7	10.6	10.7	10.4	10.5	10.3	10.2	9.9	9.7	9.6	9.9	10.0	10.3	10.4	-3
9-11 years	11.9	12.2	12.1	12.4	12.0	12.3	12.6	13.2	13.5	13.5	13.7	14.1	14.6	14.8	24 *
12 years	9.2	9.5	9.9	10.2	10.3	10.4	10.7	11.1	11.5	11.9	12.3	12.7	13.0	13.5	47 *
More than 12 years	8.1	8.4	8.6	8.9	9.1	9.2	9.5	10.0	10.3	10.6	10.9	11.3	11.6	11.9	48 *
13-15 years	8.4	8.7	9.1	9.4	9.5	9.7	9.8	10.3	10.6	11.0	11.3	11.8	12.1	12.5	49 *
16 years and over	7.7	8.0	8.1	8.3	8.6	8.7	9.3	9.6	10.1	10.3	10.5	10.9	11.1	11.4	49 *
Live-birth order															
First	9.6	9.8	10.0	10.0	10.1	10.2	10.6	10.9	11.2	11.3	11.4	11.6	11.8	12.2	27 *
Second	8.6	9.0	9.2	9.5	9.5	9.6	9.8	10.2	10.6	10.8	11.2	11.5	12.0	12.2	41 *
Third	9.2	9.6	9.9	10.2	10.3	10.4	10.6	11.1	11.4	12.0	12.2	12.9	13.1	13.5	47 *
Fourth+	10.4	10.7	10.7	11.3	11.4	11.8	11.6	12.3	12.7	13.5	13.8	14.5	15.0	15.4	49 *
Marital status															
Married	8.4	8.7	8.9	9.2	9.2	9.4	9.7	10.2	10.5	10.9	11.2	11.5	11.8	12.1	43 *
Unmarried	12.3	12.3	12.3	12.3	12.3	12.2	12.4	12.7	12.9	12.9	13.1	13.4	13.9	14.2	16 *
Trimester prenatal care began															
First trimester	8.6	9.1	9.3	9.5	9.6	9.8	10.1	10.5	10.9	11.2	11.4	11.8	12.1	12.5	44 *
After first trimester	10.6	10.5	10.6	11.0	10.9	10.9	11.0	11.3	11.6	11.8	12.2	12.5	12.6	12.5	19 *
Second trimester	10.8	10.7	10.9	11.1	11.1	11.1	11.2	11.5	11.9	12.1	12.3	12.7	13.0	13.0	20 *
Third trimester	9.0	9.2	9.3	10.1	9.6	10.0	9.9	10.3	10.0	10.1	11.1	11.5	10.5	10.3	14 *
No care	20.5	20.0	21.8	22.8	24.3	25.4	25.2	25.4	23.8	24.7	26.0	29.2	30.6	29.7	45 *
Unknown	20.9	20.6	18.7	18.7	18.3	17.8	19.1	21.1	24.3	25.6	30.1	29.3	31.9	29.9	44 *
Prenatal care index <sup>1</sup>															
Adequate plus	24.7	26.0	26.4	26.3	25.5	24.8	24.3	24.6	25.0	25.7	25.9	26.4	27.0	27.5	11 *
Adequate	3.5	3.4	3.4	3.2	3.1	3.1	3.0	3.0	3.0	3.1	3.2	3.4	3.6	3.8	8 *
Intermediate	2.6	2.7	2.8	2.9	3.0	3.1	3.1	3.1	3.1	3.3	3.6	3.9	4.1	4.0	58 *
Inadequate	10.3	10.3	10.4	10.8	10.8	10.8	10.6	10.9	11.1	11.3	11.6	11.8	11.5	11.5	12 *
No care	20.5	20.0	21.8	22.8	24.3	25.4	25.2	25.4	23.8	24.7	26.0	29.2	30.6	29.7	45 *
Unknown	21.0	21.0	19.5	18.8	17.9	17.4	18.1	20.0	22.4	23.4	25.1	25.1	27.0	26.2	25 *
Maternal smoking															
Smoking	11.2	11.5	11.7	11.9	11.9	12.2	12.4	12.8	13.1	13.2	13.5	14.0	14.5	14.7	32 *
Not smoking	8.5	8.9	9.1	9.3	9.4	9.5	9.9	10.3	10.6	11.0	11.2	11.6	11.9	12.3	44 *

<sup>\*</sup>Significant at p<0.05.

Note: Preterm birth is less than 37 completed weeks of gestation.

Table 20. Percent preterm births by selected characteristics of infant and mother among non-Hispanic blacks, three-year moving averages: Indiana, 1990-2005

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	Percent Change
Characteristics	-1992	-1993	-1994	-1995	-1996	-1997	-1998	-1999	-2000	-2001	-2002	-2003	-2004	-2005	1990-1992 to 2003-200
All	18.8	18.6	18.5	18.3	18.4	18.6	18.7	18.5	18.4	18.4	18.5	18.6	18.9	19.0	1
Plurality															
Single births	17.8	17.7	17.4	17.3	17.2	17.3	17.2	16.9	16.7	16.6	16.6	16.7	17.0	17.1	-4 *
Multiple births	55.5	52.7	54.2	52.6	56.4	57.3	60.9	63.1	64.6	65.0	64.2	65.4	66.2	68.3	23 *
Method of delivery															
Cesarean	20.7	20.4	20.5	20.4	21.2	21.6	22.4	22.4	22.9	23.8	24.0	25.0	25.0	25.5	23 *
Not cesarean	18.3	18.1	17.9	17.7	17.5	17.6	17.5	17.3	17.1	16.7	16.6	16.3	16.5	16.4	-10 *
Birth weight															
Less than 2,500 grams	63.4	63.2	64.3	63.1	63.4	63.1	64.8	65.8	66.9	66.6	66.4	66.3	66.6	67.1	6 *
Less than 1,500 grams	96.3	96.4	96.9	97.2	97.3	97.7	98.1	98.1	97.1	97.1	97.4	97.4	97.6	97.7	1
1,500-2,499 grams	53.8	53.9	54.8	53.9	53.9	53.9	55.8	56.9	58.1	57.7	57.8	57.3	57.8	57.8	7 *
2,500 grams or more	12.4	12.1	11.8	11.6	11.3	11.3	11.0	10.9	10.9	11.1	11.1	11.2	11.3	11.4	-8 *
Gestational age															
Less than 37 weeks															
Less than 32 weeks															
32-36 weeks															
37 weeks or more															
Age of mother															
Under 20 years	20.4	20.0	19.9	18.8	19.0	19.1	19.5	19.5	19.4	19.4	19.3	19.2	19.3	19.0	-7 *
Under 18 years	22.5	22.6	22.5	21.6	20.9	21.4	21.6	22.0	21.3	21.5	21.2	21.2	21.5	20.4	-9
18-19 years	18.8	17.9	17.7	16.4	17.4	17.1	17.9	17.8	18.2	18.1	18.2	18.0	18.0	18.2	-3
20 years and over	18.1	18.1	18.0	18.0	18.0	18.2	18.2	18.0	18.0	18.0	18.1	18.4	18.7	19.0	5 *
20-24 years	18.1	17.7	17.3	17.2	16.7	16.8	16.9	17.0	17.2	17.1	17.3	17.5	17.6	17.9	-1
25-29 years	17.1	17.3	17.6	17.6	17.7	18.2	17.9	17.4	16.8	17.1	18.0	18.4	19.0	18.3	7
30-34 years	18.2	18.5	18.8	19.6	19.7	19.4	18.5	18.1	19.0	19.5	19.2	19.0	19.2	20.3	12 *
35 years and over	23.4	22.8	21.5	20.9	22.8	23.5	25.1	24.8	24.2	23.1	21.0	21.9	22.4	24.2	3
Age/Education															
<20, less than appropriate	21.1	21.2	20.7	18.7	18.3	18.1	18.3	17.9	18.6	18.6	19.3	17.8	18.6	18.2	-14
<20, appropriate	20.3	19.7	19.6	18.7	19.0	19.1	19.7	19.9	19.6	19.6	19.3	19.5	19.4	19.1	-6
20+, <12 years of education	21.8	21.5	20.7	21.0	20.1	20.3	20.1	19.6	20.0	19.0	19.7	20.1	21.1	20.8	-5
20+, 12 years of education	18.3	18.3	18.5	18.6	18.9	19.1	19.1	18.6	18.3	18.3	18.4	18.5	18.6	19.2	5
20+, 13+ years of education	15.9	15.9	15.8	15.9	16.0	16.2	16.1	16.1	16.2	16.8	16.9	17.4	17.6	17.7	11 *

Table 20. Percent preterm births by selected characteristics of infant	and mother among non-Hispanic blacks	s, three-year moving averages: Indian	a, 1990-2005Con.

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	Percent Change
Characteristics	-1992	-1993	-1994	-1995	-1996	-1997	-1998	-1999	-2000	-2001	-2002	-2003	-2004	-2005	1990-1992 to 2003-2005
Educational attainment															
Less than 12 years	21.7	21.6	21.2	20.8	20.0	20.2	20.2	20.0	20.1	19.7	20.1	20.2	20.8	20.3	-7 *
0-8 years	26.7	27.1	26.0	23.0	21.4	21.9	22.6	24.1	23.4	23.7	21.3	20.8	22.3	22.3	-17
9-11 years	21.3	21.1	20.8	20.6	19.9	20.1	20.0	19.8	19.9	19.5	20.0	20.1	20.7	20.1	-5
12 years	18.2	17.9	18.1	17.9	18.5	18.6	18.9	18.5	18.3	18.2	18.2	18.3	18.3	19.0	4
More than 12 years	16.1	16.1	15.9	15.8	16.0	16.1	16.1	16.1	16.2	16.8	17.0	17.5	17.6	17.7	10 *
13-15 years	16.7	16.4	16.0	16.0	16.5	16.8	16.6	16.8	16.9	17.6	17.5	18.2	18.2	18.3	10 *
16 years and over	13.8	14.8	15.3	15.2	14.3	14.2	14.4	14.0	14.2	14.6	15.5	15.8	16.3	16.2	17 *
Live-birth order															
First	17.9	17.3	17.1	16.5	16.6	16.7	17.0	16.9	16.6	16.7	16.9	17.1	17.5	17.2	-4
Second	17.8	17.7	17.5	16.9	17.2	17.3	17.3	16.8	17.2	17.6	17.9	18.0	17.9	18.0	1
Third	19.2	19.5	19.5	20.0	19.5	19.2	19.0	19.1	18.8	18.3	17.6	18.1	18.6	19.7	2
Fourth+	22.3	22.7	22.6	23.1	23.3	24.3	24.1	23.6	23.2	22.8	22.8	22.8	23.1	23.1	4
Marital status															
Married	15.3	15.2	14.6	14.3	14.4	15.1	15.5	15.9	15.6	16.1	16.1	16.7	17.4	17.9	17 *
Unmarried	19.9	19.7	19.7	19.4	19.4	19.5	19.4	19.1	19.1	19.0	19.1	19.1	19.2	19.3	-3
Trimester prenatal care began															
First trimester	16.7	16.5	16.8	16.5	16.7	16.7	17.0	16.8	17.0	17.2	17.5	17.6	17.9	18.2	9 *
After first trimester	19.0	19.0	19.1	19.2	18.7	19.2	18.8	18.8	18.4	18.1	18.1	18.1	18.4	18.1	-5
Second trimester	19.7	19.6	19.8	19.6	19.3	19.6	19.3	19.1	18.7	18.7	18.8	18.9	19.1	18.9	-4
Third trimester	15.5	15.9	15.3	16.6	15.7	17.0	16.5	17.8	17.0	15.2	14.9	14.4	15.1	14.1	-9
No care	39.9	39.4	40.6	41.0	43.0	42.6	41.1	39.3	39.1	39.4	36.9	37.3	36.7	37.4	-6
Unknown	28.7	31.2	26.6	26.1	23.6	25.9	26.6	31.3	32.9	34.7	34.1	36.8	34.3	33.6	17 *
Prenatal care index <sup>1</sup>															
Adequate plus	36.0	36.4	36.7	35.2	34.0	32.8	32.4	31.6	31.7	32.3	33.4	33.7	34.1	34.4	-4
Adequate	9.5	9.1	8.8	7.8	7.2	7.1	7.0	6.8	6.5	6.5	6.5	6.9	7.0	7.1	-25 *
Intermediate	7.4	7.1	6.7	6.8	7.3	8.0	8.1	8.2	8.6	8.8	8.1	7.9	7.4	7.8	6
Inadequate	17.4	17.7	17.9	18.3	17.7	18.0	17.4	17.7	17.3	16.7	16.6	16.2	16.7	16.3	-6
No care	39.9	39.4	40.6	41.0	43.0	42.6	41.1	39.3	39.1	39.4	36.9	37.3	36.7	37.4	-6
Unknown	25.8	26.9	23.9	24.1	22.8	23.6	24.2	26.7	29.0	29.5	29.8	31.9	33.1	32.5	26 *
Maternal smoking															
Smoking	22.2	22.5	22.7	23.4	23.3	22.9	22.2	21.9	22.5	21.9	21.9	21.6	21.9	21.4	-3
Not smoking	17.8	17.6	17.5	17.1	17.2	17.6	17.8	17.6	17.5	17.7	17.7	18.0	18.3	18.5	4 *

Based on APNCU index (Kotelchuck, M., Am J Public Health 1994;84:1414-1420).

Note: Preterm birth is less than 37 completed weeks of gestation.

<sup>...</sup> Category not applicable \*Significant at p<0.05.

Table 21. Percent preterm births by selected characteristics of infant and mother among Hispanics, three-year moving averages: Indiana, 1990-2005

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	Percent Change
Characteristics	-1992	-1993	-1994	-1995	-1996	-1997	-1998	-1999	-2000	-2001	-2002	-2003	-2004	-2005	1990-1992 to 2003-2005
dl .	11.7	12.3	12.4	12.1	11.6	11.6	11.7	11.8	11.5	11.8	12.1	12.6	12.5	12.8	10 *
Plurality															
Single births	10.9	11.4	11.5	11.2	10.5	10.6	10.7	10.8	10.6	11.0	11.3	11.6	11.5	11.8	8
Multiple births	52.3	51.9	56.4	51.9	53.4	47.3	50.0	49.1	50.9	50.8	50.3	57.0	57.9	57.9	11
Method of delivery															
Cesarean	13.2	14.5	15.4	15.5	15.5	15.8	15.9	15.9	14.8	15.8	15.5	16.4	15.9	16.7	27 *
Not cesarean	11.2	11.4	11.3	10.9	10.3	10.3	10.5	10.7	10.5	10.7	10.9	11.2	11.2	11.4	2
Less than 2,500 grams	61.9	65.6	68.3	67.3	64.1	59.9	61.8	61.7	62.0	61.1	60.6	62.3	63.3	65.8	6
Less than 1,500 grams	96.7	97.5	98.8	98.8	96.9	95.7	95.7	96.7	96.3	96.4	96.6	97.7	97.8	96.8	0
1,500-2,499 grams	54.5	57.1	60.2	59.7	56.2	51.2	53.4	53.2	53.7	51.9	51.7	54.2	55.6	58.9	8
2,500 grams or more	8.5	8.5	8.5	8.3	7.9	7.9	7.8	8.0	8.0	8.5	8.8	9.1	9.0	9.1	8
Gestational age															
Less than 37 weeks															
Less than 32 weeks															
32-36 weeks															
37 weeks or more															•••
Age of mother															
Under 20 years	12.4	13.3	14.0	14.5	14.1	13.9	13.8	13.4	12.7	13.2	13.7	14.5	14.3	15.1	22 *
Under 18 years	12.6	12.9	13.7	16.2	17.4	17.3	16.1	14.6	14.2	14.4	15.6	15.6	15.4	16.2	29
18-19 years	12.2	13.5	14.2	13.4	12.0	11.7	12.3	12.6	12.0	12.6	12.7	13.9	13.7	14.4	18
20 years and over	11.5	12.0	12.0	11.5	10.9	11.0	11.2	11.4	11.2	11.5	11.7	12.2	12.1	12.4	8
20-24 years	11.3	11.7	11.8	11.8	10.9	11.1	10.4	10.9	10.2	11.1	11.5	12.4	12.0	12.0	7
25-29 years	10.3	11.0	11.2	10.3	9.6	9.4	10.7	10.7	11.3	11.1	11.4	11.4	11.6	12.1	18 *
30-34 years	12.6	13.0	12.4	12.3	12.1	12.7	12.5	13.1	11.6	11.8	11.0	11.6	11.9	12.4	-2
35 years and over	14.4	15.0	14.1	11.9	12.3	12.4	14.0	13.7	14.8	14.9	15.5	15.2	14.7	15.0	4
Age/Education															
<20, less than appropriate	10.8	12.7	12.3	13.3	12.7	12.8	11.9	12.0	12.0	13.8	14.8	15.5	14.3	14.2	31
<20, appropriate	12.8	13.5	15.0	15.2	14.8	14.7	15.4	14.4	13.4	12.5	12.4	13.3	14.2	15.7	23
20+, <12 years of education	12.0	12.2	13.0	11.5	11.6	11.1	11.4	11.6	11.5	11.8	11.9	12.3	12.0	12.4	3
20+, 12 years of education	12.1	11.9	11.9	11.1	10.7	11.2	11.7	12.0	11.2	11.3	11.3	11.8	11.9	12.1	1
20+, 13+ years of education	10.4	12.3	11.4	11.9	10.2	10.5	10.2	10.1	10.1	11.0	11.8	12.7	12.5	12.8	23 *

Table 21. Percent preterm births by selected characteristics of infant and mother among Hispanics, three-year moving averages: Indiana, 1990-2005--Con.

Table 21. I ercent preterm birti	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	Percent Change
Characteristics	-1992	-1993	-1994	-1995	-1996	-1997	-1998	-1999	-2000	-2001	-2002	-2003	-2004	-2005	1990-1992 to 2003-2005
Educational attainment															
Less than 12 years	11.7	12.5	13.3	12.8	12.7	12.3	12.3	12.2	11.9	12.2	12.5	12.8	12.5	12.8	9
0-8 years	11.4	11.9	13.2	11.9	11.9	11.5	12.0	11.9	11.8	12.1	12.2	12.5	12.7	13.2	16
9-11 years	11.9	12.7	13.4	13.4	13.1	12.9	12.5	12.3	11.9	12.3	12.7	13.0	12.3	12.4	4
12 years	12.3	12.1	12.3	11.4	10.9	11.2	11.9	12.1	11.3	11.3	11.2	11.8	12.0	12.5	2
More than 12 years	10.5	12.4	11.4	11.8	10.2	10.4	10.2	10.1	10.2	11.1	11.8	12.7	12.6	12.8	22 *
13-15 years	11.0	13.3	12.0	12.6	11.2	11.0	10.7	10.2	10.3	10.8	11.9	12.6	12.4	12.9	17
16 years and over	9.4	10.2	10.0	10.1	8.0	9.1	9.2	9.9	9.9	11.5	11.8	12.9	12.8	12.7	35
Live-birth order															
First	11.6	12.0	12.3	12.0	11.1	11.4	11.4	11.5	10.9	11.6	11.8	12.4	11.9	12.4	7
Second	10.4	10.9	11.3	11.4	11.3	11.0	10.8	10.6	10.7	11.0	11.6	12.0	12.2	12.0	16
Third	11.4	12.5	12.5	11.7	11.2	11.3	12.7	13.0	12.0	12.0	11.6	12.5	12.3	12.8	11
Fourth+	15.0	15.6	15.1	14.3	13.5	13.4	12.9	12.9	13.1	13.4	13.9	14.0	14.4	15.2	1
Marital status															
Married	10.7	11.0	10.3	10.0	9.6	9.9	10.0	10.2	10.0	10.8	11.2	11.9	11.5	11.8	10
Unmarried	13.4	14.5	15.7	15.2	14.2	13.9	14.0	13.9	13.2	12.9	12.9	13.1	13.3	13.7	2
Trimester prenatal care began															
First trimester	11.5	12.2	12.0	11.5	11.0	11.2	11.4	11.5	11.1	11.2	11.2	11.8	11.9	12.4	8
After first trimester	11.2	11.4	12.0	12.4	11.1	11.2	10.9	11.3	10.7	11.5	12.2	12.7	12.2	12.3	10
Second trimester	12.0	12.1	12.3	12.6	11.3	11.6	11.5	11.8	11.2	11.7	12.4	12.8	12.5	12.6	5
Third trimester	7.6	8.5	10.7	11.3	10.3	9.6	8.6	9.3	8.9	10.8	11.3	12.0	11.1	11.1	46
No care	21.7	24.7	32.6	27.1	29.2	23.7	25.3	21.5	23.1	25.9	26.6	27.8	26.2	24.3	12
Unknown			17.5	14.9	16.6	14.9	18.9	18.1	21.6	22.6	23.5	24.4	22.3	23.1	
Prenatal care index <sup>1</sup>															
Adequate plus	30.4	32.5	29.5	27.4	25.0	27.5	27.8	28.5	25.9	26.8	26.4	27.8	28.0	29.3	-3
Adequate	4.3	3.9	4.7	5.5	5.8	5.0	4.1	4.1	4.5	5.0	4.8	4.5	4.6	4.8	13
Intermediate	4.6	5.5	5.5	4.8	4.3	4.4	4.7	4.9	4.8	4.5	4.9	4.8	4.9	4.8	4
Inadequate	9.9	10.2	11.0	11.8	10.8	10.6	10.4	10.2	9.9	10.4	11.6	12.4	12.2	11.7	18
No care	21.7	24.7	32.6	27.1	29.2	23.7	25.3	21.5	23.1	25.9	26.6	27.8	26.2	24.3	12
Unknown	21.1	15.6	15.9	13.3	15.4	15.0	18.1	18.1	20.4	21.4	21.8	21.2	20.6	21.2	1
Maternal smoking															
Smoking	13.5	15.5	15.1	14.4	13.6	14.6	16.1	14.8	12.4	11.5	13.0	14.1	14.7	15.0	11
Not smoking	11.4	11.8	12.1	11.8	11.3	11.3	11.3	11.6	11.4	11.8	11.9	12.4	12.3	12.7	12 *

Based on APNCU index (Kotelchuck, M., Am J Public Health 1994;84:1414-1420).

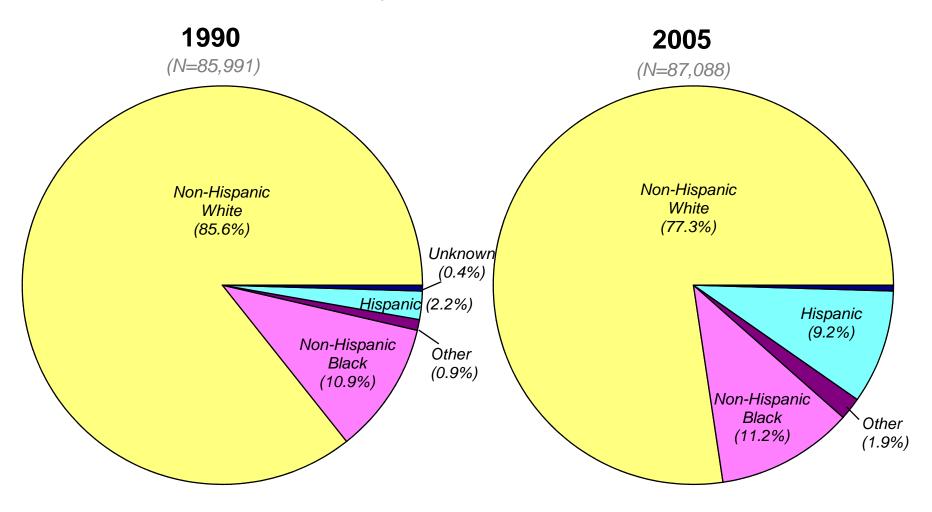
Note: Preterm birth is less than 37 completed weeks of gestation.

<sup>...</sup> Category not applicable

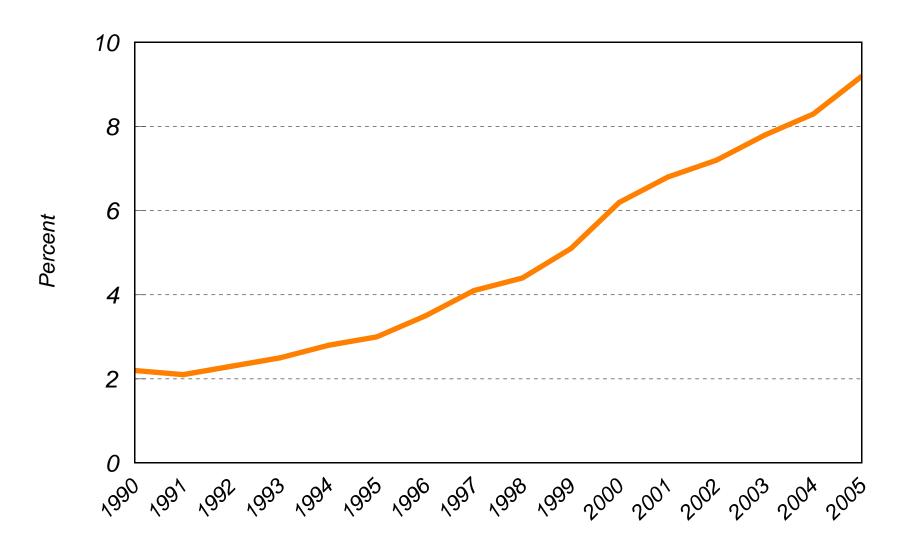
<sup>--</sup> Figure does not meet standard of reliablity or precision; based on fewer than 20 births in the numerator

<sup>\*</sup>Significant at p<0.05.

### Percent Distribution of Live Births By Race and Hispanic Origin of Mother

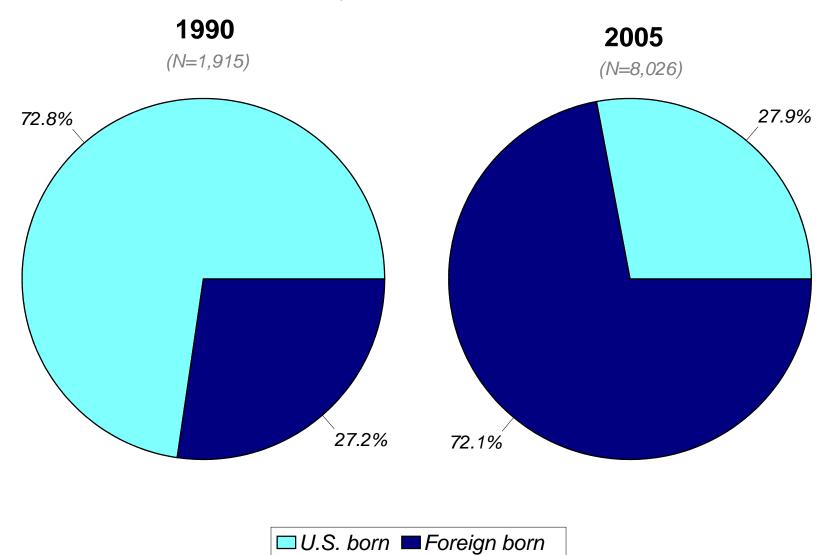


#### **Percentage of Births to Hispanic Mothers**



### Percent Distribution of Hispanic Live Births By Birth Place of Mother

Indiana, 1990 and 2005 Live Births

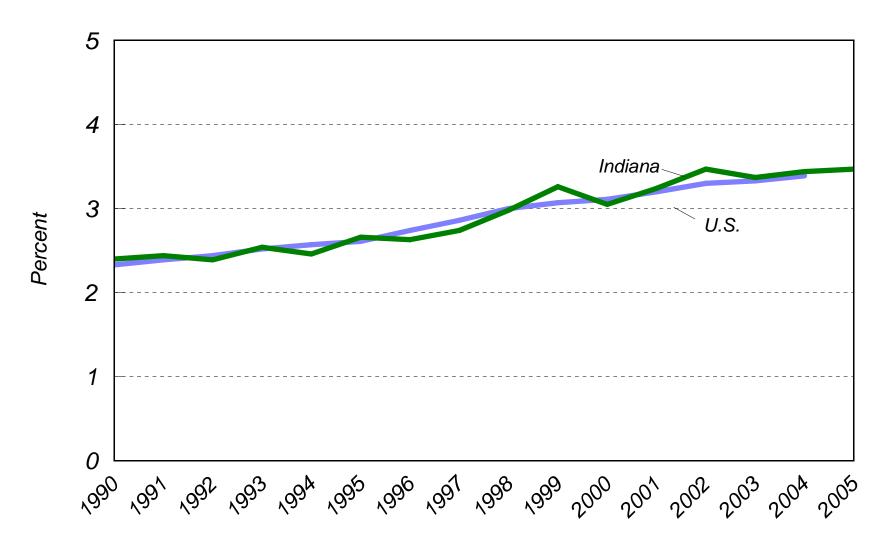


Source: Indiana State Department of Health, Maternal and Children's Special Health Care Services Report: Trends in Birth Outcomes and Maternal Characteristics in Indiana: Statistics from live birth data 1990-2005.

Figure 4

#### Multiple Birth Rate<sup>1</sup>

Indiana and U.S., 1990-2005 Live Births



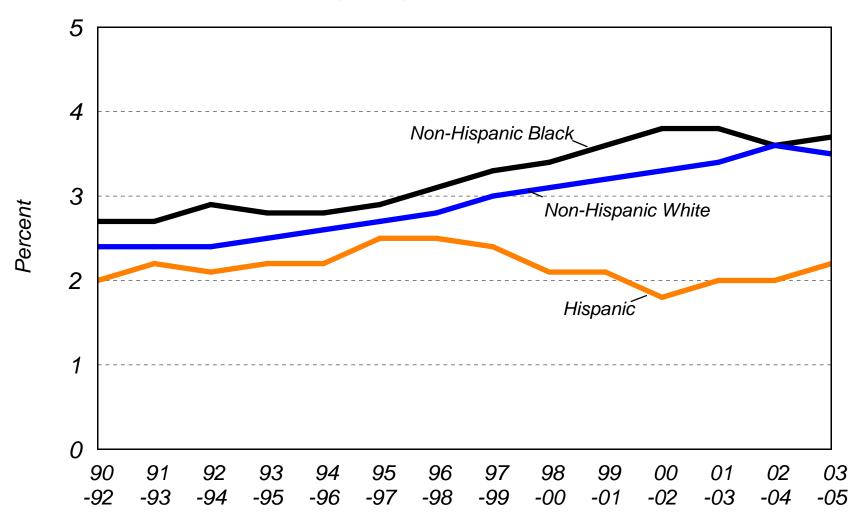
<sup>&</sup>lt;sup>1</sup>Number of live births in all multiple deliveries per 100 live births.

Source, U.S. data: National vital statistics reports, National Center for Health Statistics/Center for Disease Control and Prevention Source, Indiana data: Indiana State Department of Health, Maternal and Children's Special Health Care Services Report: Trends in Birth Outcomes and Maternal Characteristics in Indiana: Statistics from live birth data 1990-2005, Table 2

Figure 5

## Multiple Birth Rate<sup>1</sup> By Race and Hispanic Origin of Mother

Three-year Moving Averages: Indiana, 1990-2005 Live Births

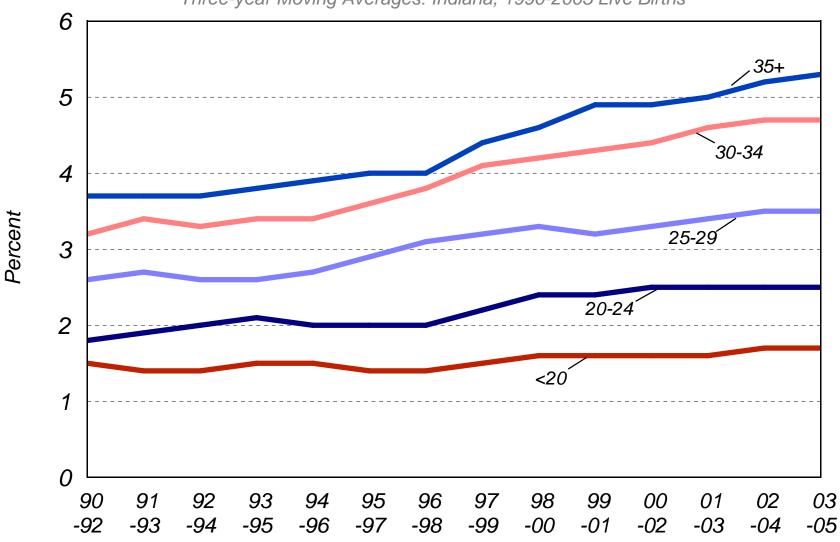


<sup>&</sup>lt;sup>1</sup>Number of live births in all multiple deliveries per 100 live births.
Source: Indiana State Department of Health, Maternal and Children's Special Health Care Services
Report: Trends in Birth Outcomes and Maternal Characteristics in Indiana: Statistics from live birth data 1990-2005, Tables 5-7

Figure 6

### Multiple Birth Rate<sup>1</sup> By Age of Mother

Three-year Moving Averages: Indiana, 1990-2005 Live Births

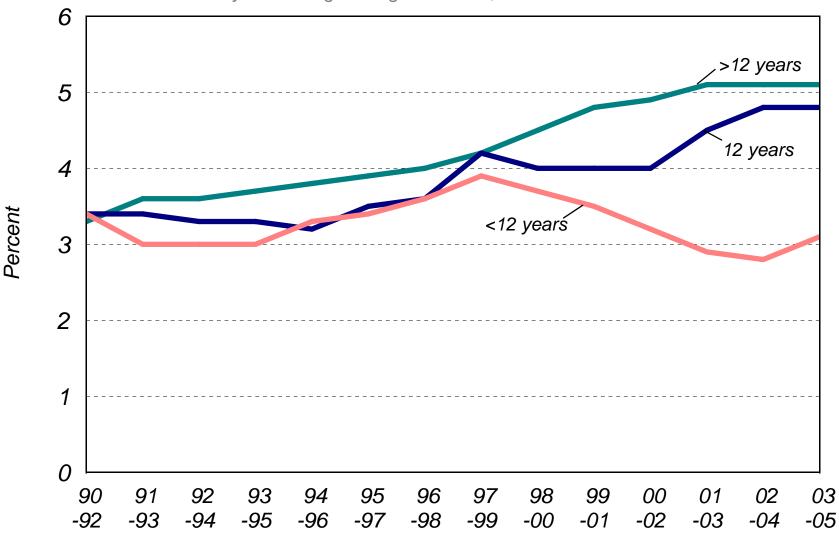


<sup>&</sup>lt;sup>1</sup>Number of live births in all multiple deliveries per 100 live births. Source: Indiana State Department of Health, Maternal and Children's Special Health Care Services Report: Trends in Birth Outcomes and Maternal Characteristics in Indiana: Statistics from live birth data 1990-2005.

Figure 7

### Multiple Birth Rate<sup>1</sup> Among Mothers 30 Years of Age and Older By Years of Education

Three-year Moving Averages: Indiana, 1990-2005 Live Births



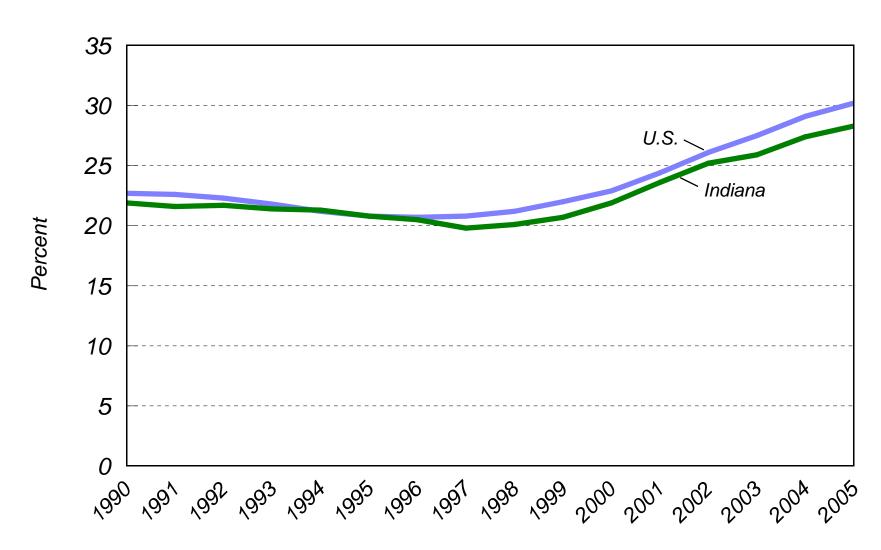
<sup>&</sup>lt;sup>1</sup>Number of live births in all multiple deliveries per 100 live births. Source: Indiana State Department of Health, Maternal and Children's Special Health Care Services

Report: Trends in Birth Outcomes and Maternal Characteristics in Indiana: Statistics from live birth data 1990-2005.

Figure 8

#### **Total Cesarean Delivery Rate**<sup>1</sup>

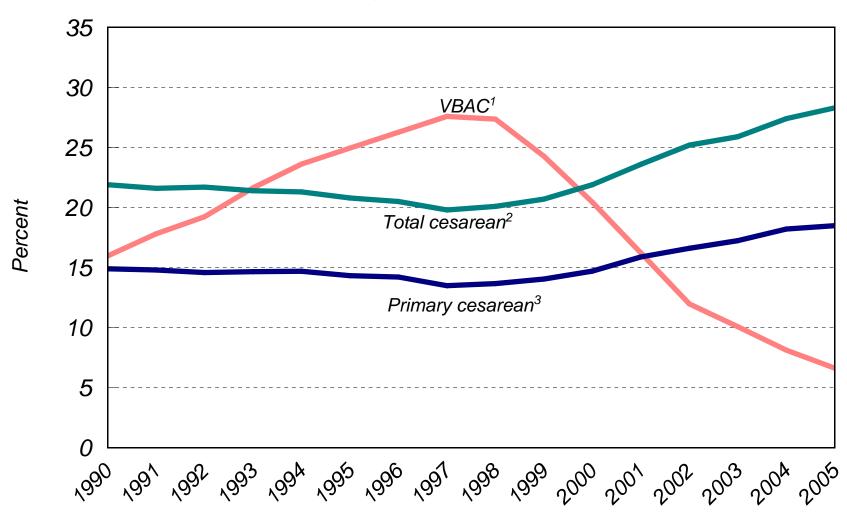
Indiana and U.S., 1990-2005 Live Births



<sup>&</sup>lt;sup>1</sup>Percentage of all live births by cesarean delivery.

Source, U.S. data: National vital statistics reports/Health E-Stats, National Center for Health Statistics/Center for Disease Control and Prevention Source, Indiana data: Indiana State Department of Health, Maternal and Children's Special Health Care Services
Report: Trends in Birth Outcomes and Maternal Characteristics in Indiana: Statistics from live birth data 1990-2005, Table 2

### **Total and Primary Cesarean Rate** and Vaginal Birth after Cesarean Rate



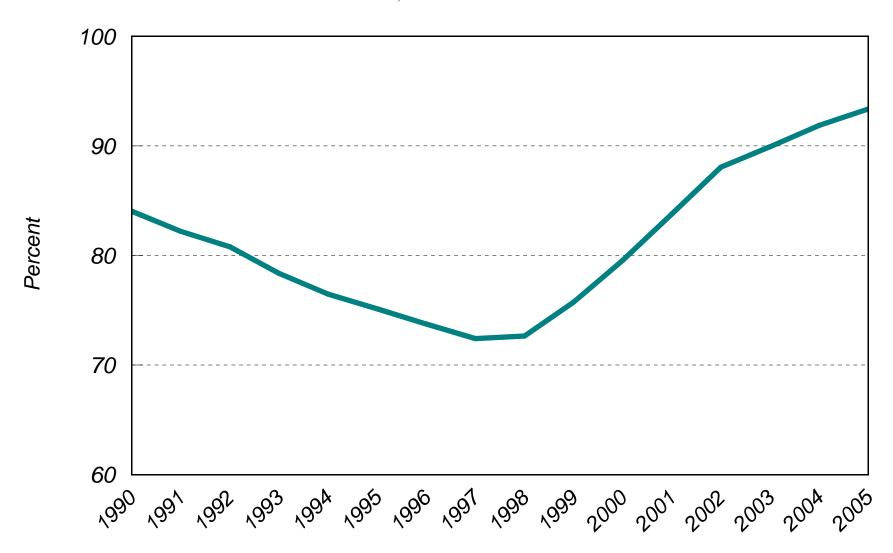
<sup>&</sup>lt;sup>1</sup>Number of vaginal births after cesarean (VBAC) per 100 live births to women with a previous cesarean delivery.

<sup>&</sup>lt;sup>2</sup>Percentage of all live births by cesarean delivery.

<sup>&</sup>lt;sup>3</sup>Number of primary cesarean deliveries per 100 live births to women have not had a previous cesarean. Source, Indiana data: Indiana State Department of Health, Maternal and Children's Special Health Care Services Report: Trends in Birth Outcomes and Maternal Characteristics in Indiana: Statistics from live birth data 1990-2005

Figure 10

#### Repeat Cesarean Rate<sup>1</sup>

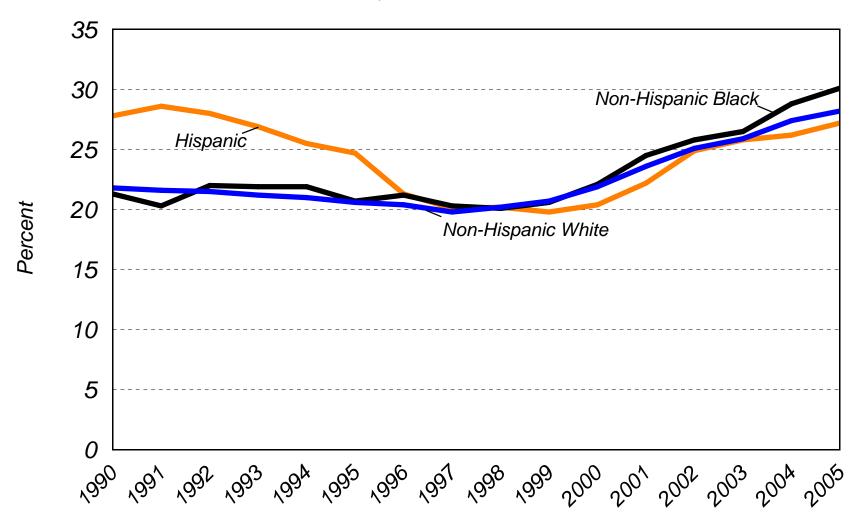


<sup>&</sup>lt;sup>1</sup>Per 100 births to women who had a previous cesarean. Source, Indiana data: Indiana State Department of Health, Maternal and Children's Special Health Care Services Report: Trends in Birth Outcomes and Maternal Characteristics in Indiana: Statistics from live birth data 1990-2005

Figure 11

### Total Cesarean Delivery Rate<sup>1</sup> By Race and Hispanic Origin of Mother

Indiana, 1990-2005 Live Births



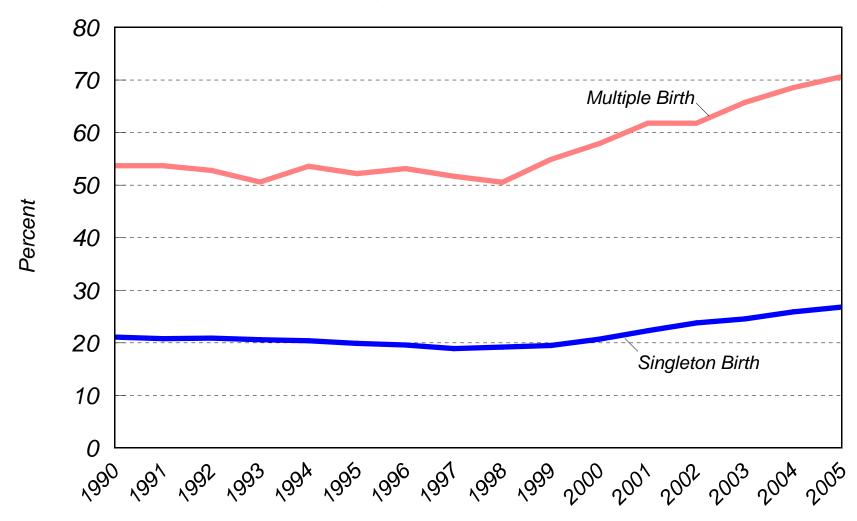
<sup>&</sup>lt;sup>1</sup>Percentage of all live births by cesarean delivery.

Source: Indiana State Department of Health, Maternal and Children's Special Health Care Services

Report: Trends in Birth Outcomes and Maternal Characteristics in Indiana: Statistics from live birth data 1990-2005, Tables 5 -7

Figure 12

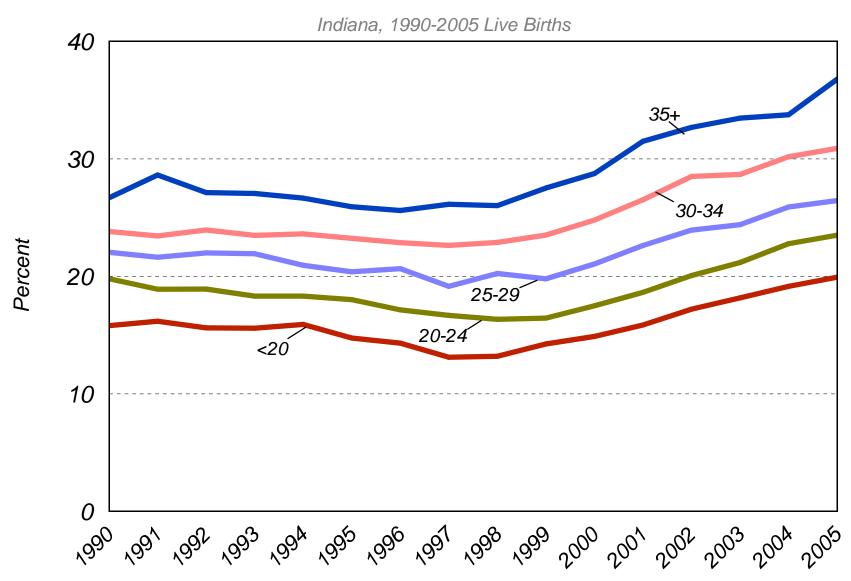
### Total Cesarean Delivery Rate<sup>1</sup> Among Singleton and Multiple Births



<sup>&</sup>lt;sup>1</sup>Percentage of all live births by cesarean delivery. Source: Indiana State Department of Health, Maternal and Children's Special Health Care Services Report: Trends in Birth Outcomes and Maternal Characteristics in Indiana: Statistics from live birth data 1990-2005.

Figure 13

### Total Cesarean Delivery Rate<sup>1</sup> Among Singleton Births by Age of Mother

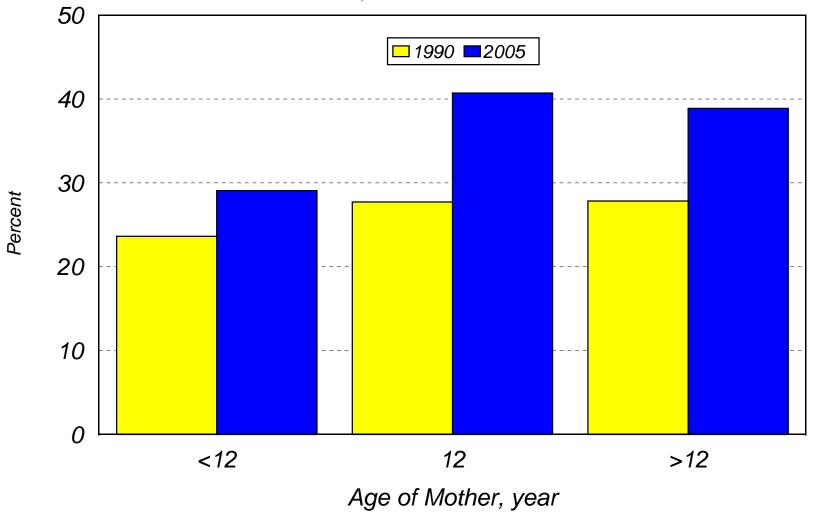


<sup>&</sup>lt;sup>1</sup>Percentage of all live births by cesarean delivery. Source: Indiana State Department of Health, Maternal and Children's Special Health Care Services Report: Trends in Birth Outcomes and Maternal Characteristics in Indiana: Statistics from live birth data 1990-2005.

Figure 14

# Total Cesarean Delivery Rate<sup>1</sup> Among Singleton Births to Mothers 35 Years of Age and Older By Years of Education

Indiana, 1990 and 2005 Live Births



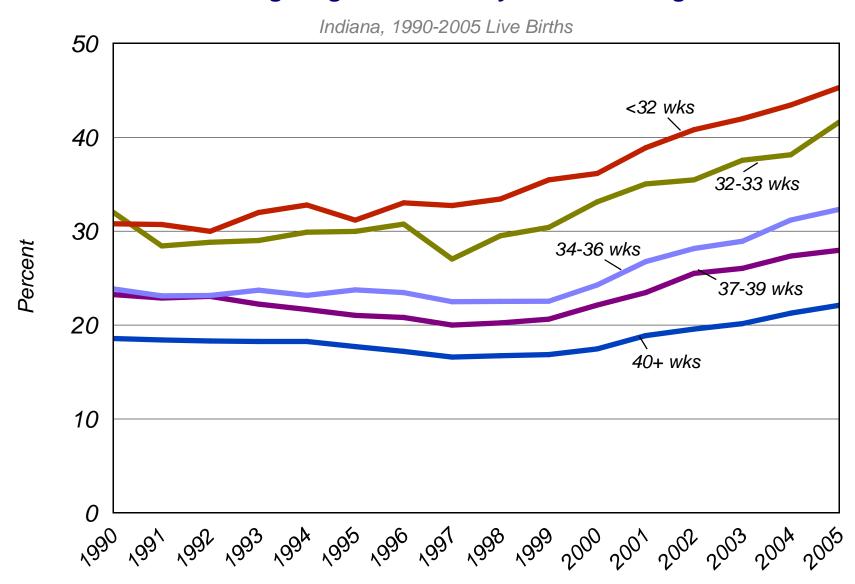
<sup>&</sup>lt;sup>1</sup>Percentage of all live births by cesarean delivery.

Source: Indiana State Department of Health, Maternal and Children's Special Health Care Services

Report: Trends in Birth Outcomes and Maternal Characteristics in Indiana: Statistics from live birth data 1990-2005.

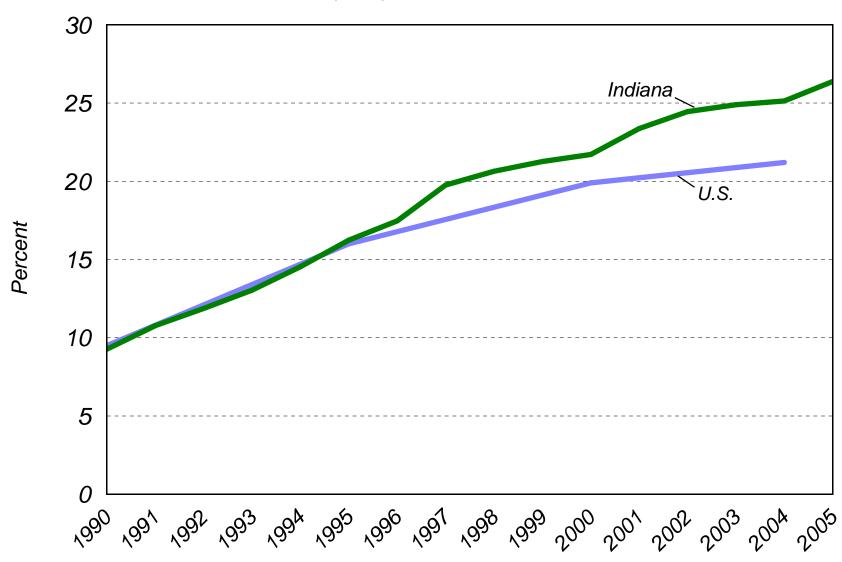
Figure 15

### Total Cesarean Delivery Rate<sup>1</sup> Among Singleton Births by Gestational Age



<sup>&</sup>lt;sup>1</sup>Percentage of all live births by cesarean delivery. Source: Indiana State Department of Health, Maternal and Children's Special Health Care Services Report: Trends in Birth Outcomes and Maternal Characteristics in Indiana: Statistics from live birth data 1990-2005.

#### Rate of Induction of Labor<sup>1</sup>



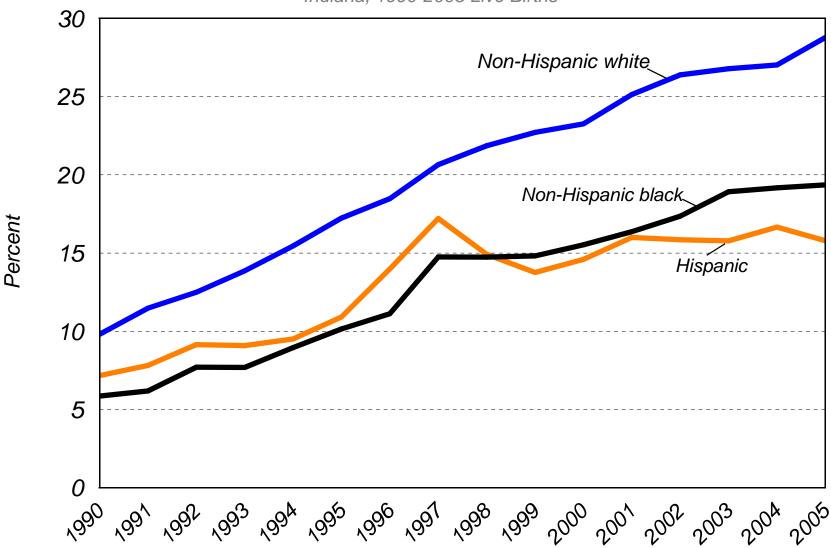
<sup>&</sup>lt;sup>1</sup>Rates are number of live births with induction per 100 live births in specified group.

Source, U.S. data: National vital statistics reports, National Center for Health Statistics/Center for Disease Control and Prevention Source, Indiana data: Indiana State Department of Health, Maternal and Children's Special Health Care Services

Report: Trends in Birth Outcomes and Maternal Characteristics in Indiana: Statistics from live birth data 1990-2005, Table 2

Figure 17

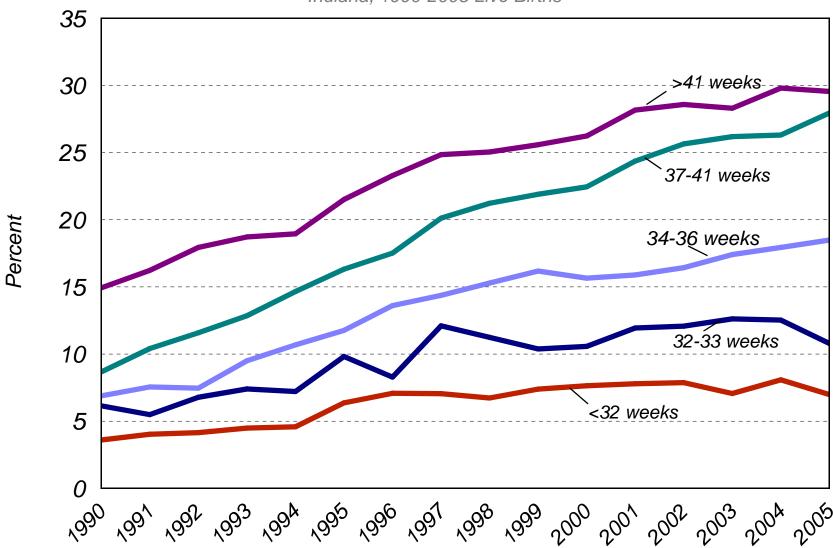
### Rate of Induction of Labor<sup>1</sup> By Race and Hispanic Origin of Mother



<sup>&</sup>lt;sup>1</sup>Rates are number of live births with induction per 100 live births in specified group. Source: Indiana State Department of Health, Maternal and Children's Special Health Care Services Report: Trends in Birth Outcomes and Maternal Characteristics in Indiana: Statistics from live birth data 1990-2005, Table 2

Figure 18

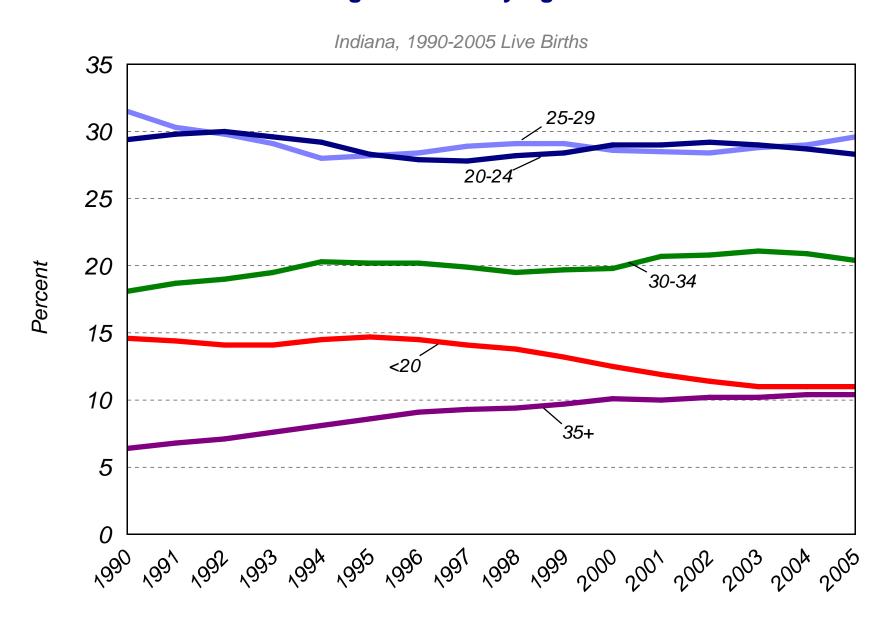
### Rates of Induction of Labor<sup>1</sup> By Gestational Age



<sup>&</sup>lt;sup>1</sup>Rates are number of live births with induction per 100 live births in specified group. Source: Indiana State Department of Health, Maternal and Children's Special Health Care Services Report: Trends in Birth Outcomes and Maternal Characteristics in Indiana: Statistics from live birth data 1990-2005, Table 2

Figure 19

#### Percentage of Births by Age of Mother



### Percent Distribution of Births According to Age of Mother By Race and Hispanic Origin

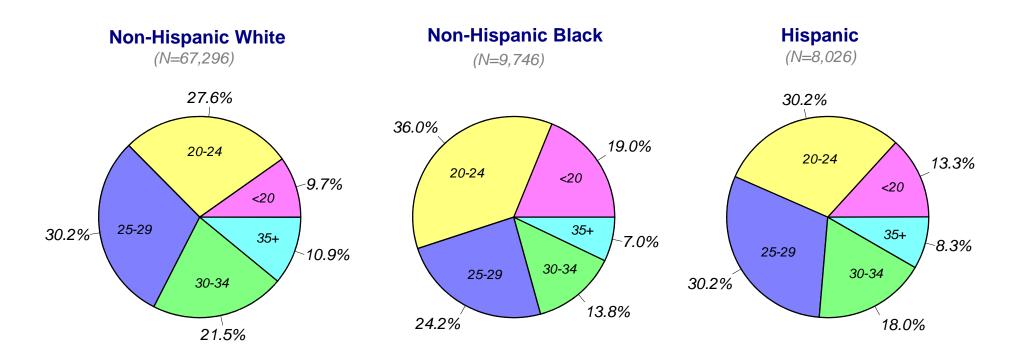
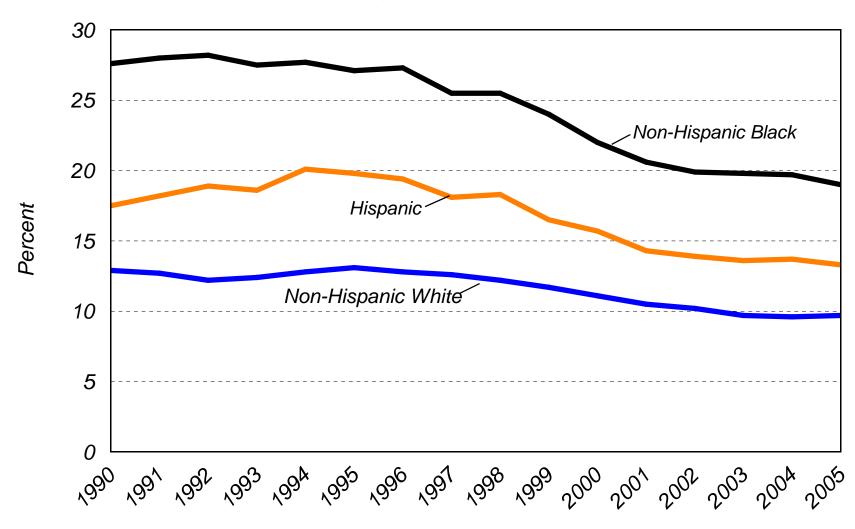


Figure 21

### Percentage of Births to Mothers Under 20 Years of Age By Race and Hispanic Origin



#### Percentage of Births to Mothers 35 Years of Age and Older By Race and Hispanic Origin

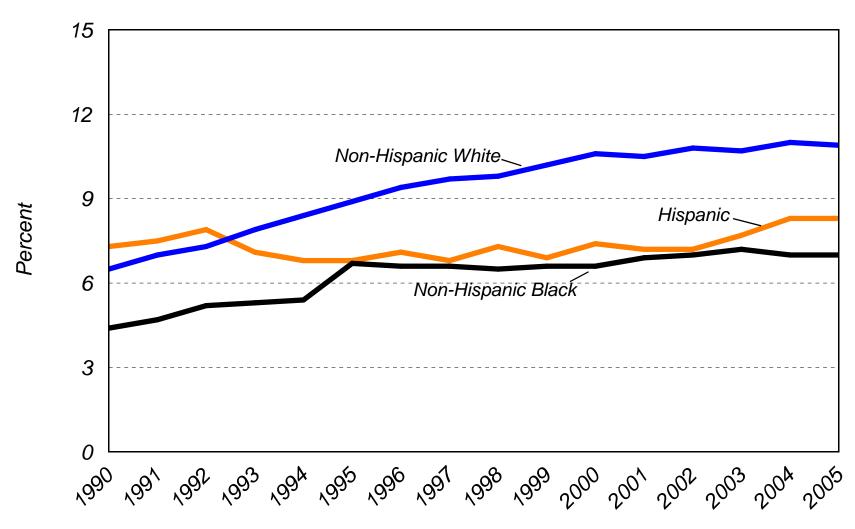


Figure 23

### Percent Distribution of Births According to Age and Education of Mother By Race and Hispanic Origin

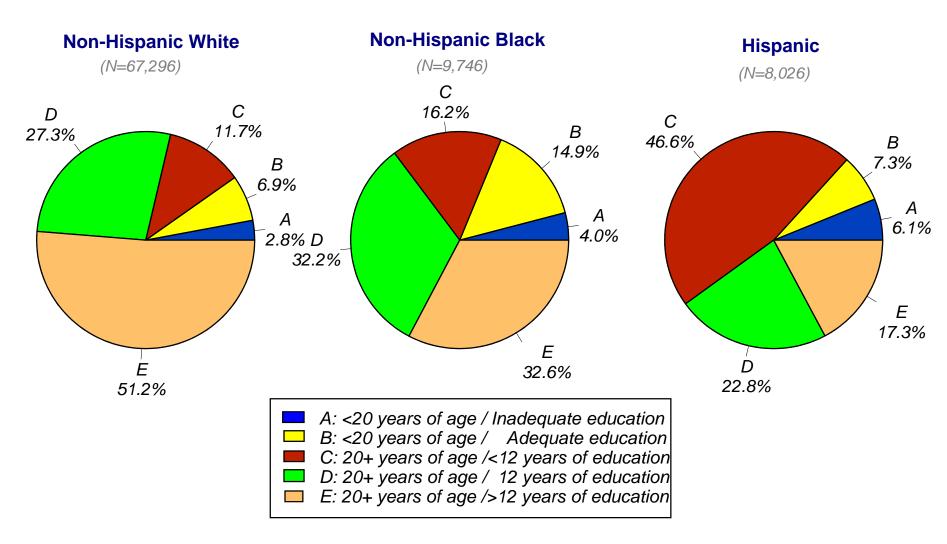


Figure 24

#### Percent Distribution of Births By Education, Race, and Hispanic Origin of Mother Among Mothers Under 20 Years of Age

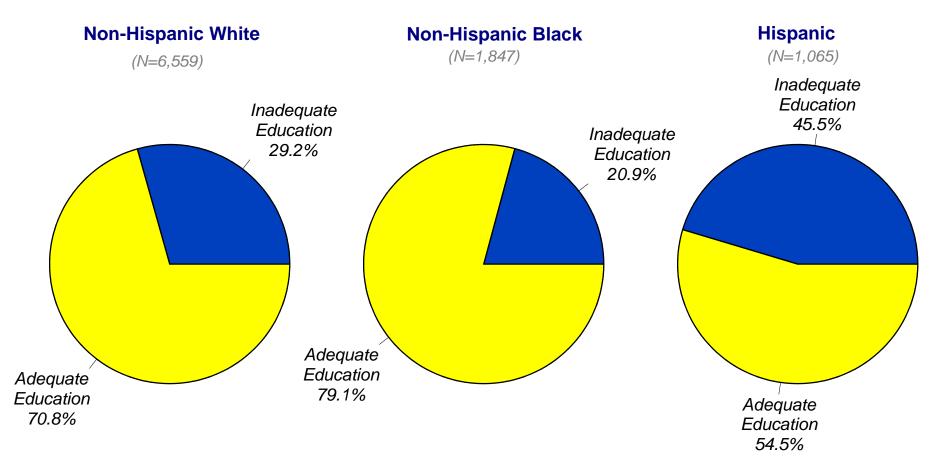
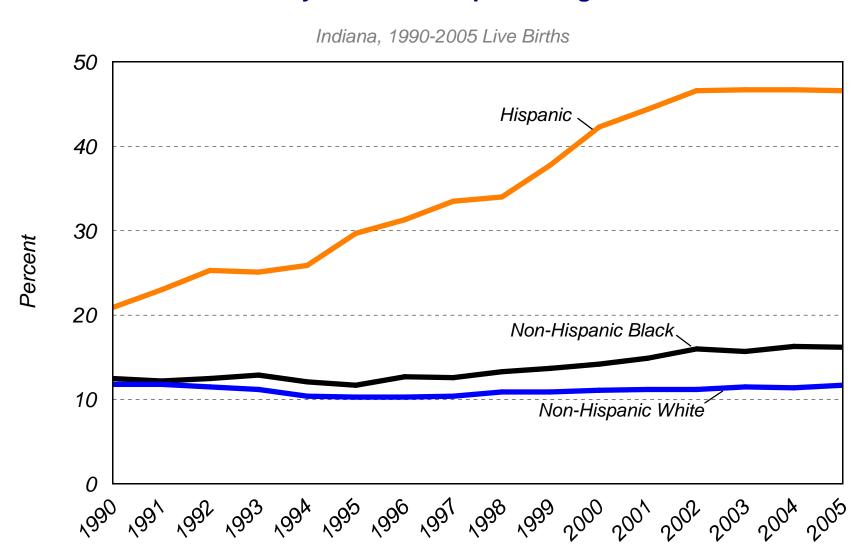


Figure 25

### Percentage of Births to Mothers with Less Than 12 Years of Education\* By Race and Hispanic Origin



#### \*Among mothers 20 years of age and older

Figure 26

#### Percentage of Births to Mothers With 16 or More Years of Education By Race and Hispanic Origin

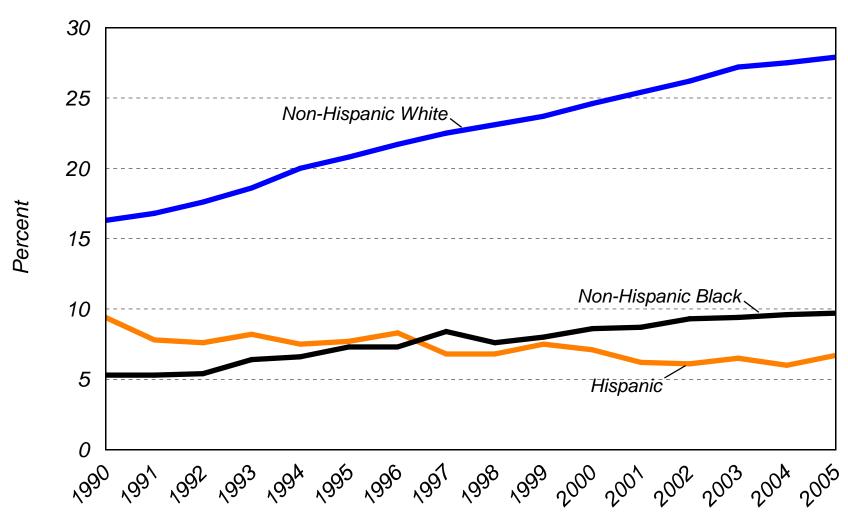
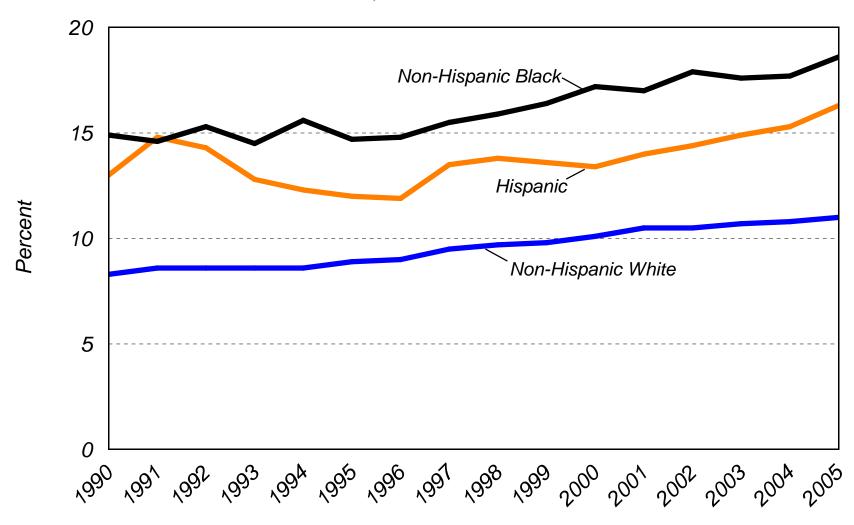


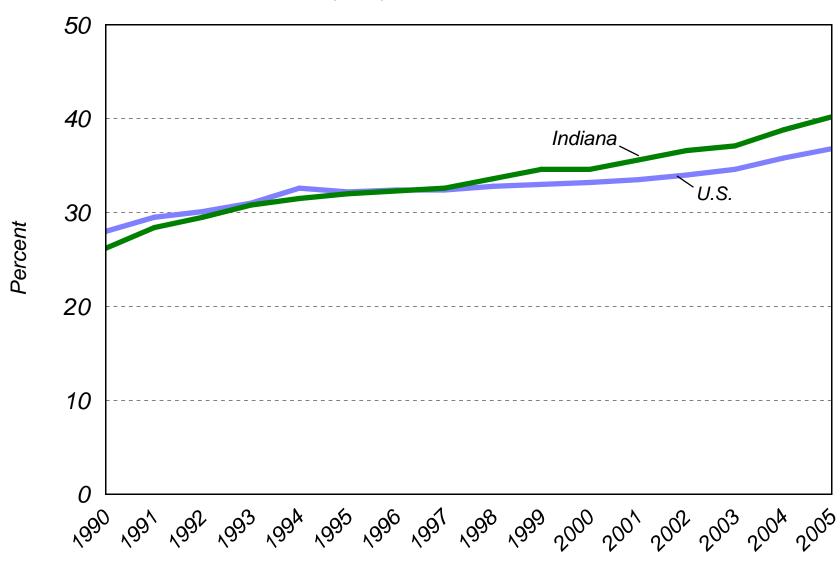
Figure 27

### Percentage of Births to Mothers with Fourth- and Higher-Order Births By Race and Hispanic Origin



#### **Percentage of Births to Unmarried Mothers**

Indiana, U.S., 1990-2005 Live Births



Source, U.S. data: National vital statistics reports, National Center for Health Statistics/Center for Disease Control and Prevention Source, Indiana data: Indiana State Department of Health, Maternal and Children's Special Health Care Services Report: Trends in Birth Outcomes and Maternal Characteristics in Indiana: Statistics from live birth data 1990-2005, Table 2

### Percentage of Births to Unmarried Mothers By Race and Hispanic Origin

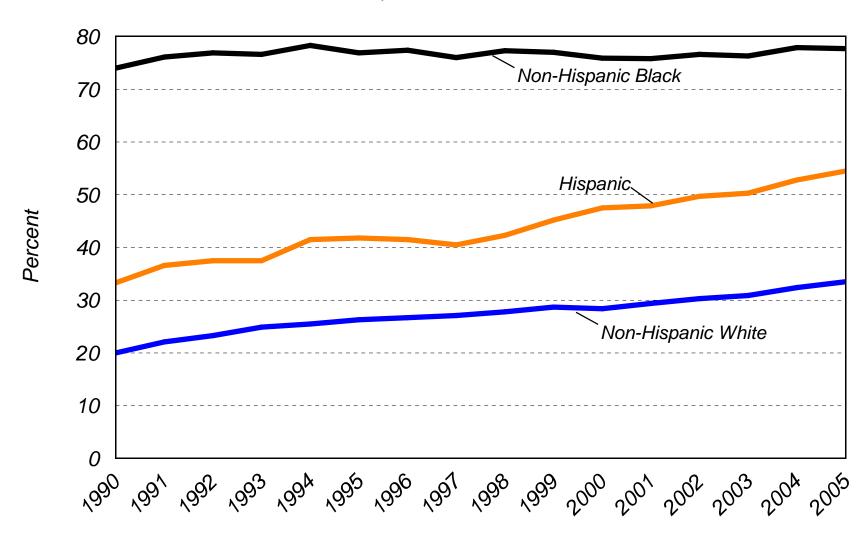


Figure 30

### Percent Distribution of Births According to Trimester Prenatal Care Began By Race and Hispanic Origin of Mother

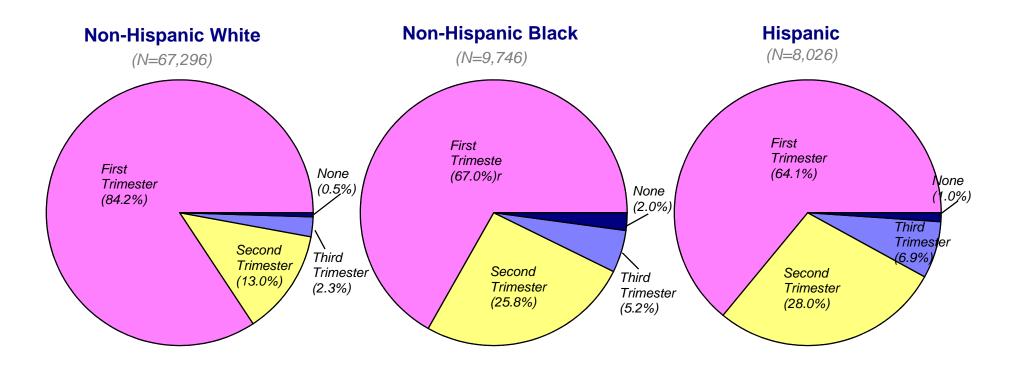
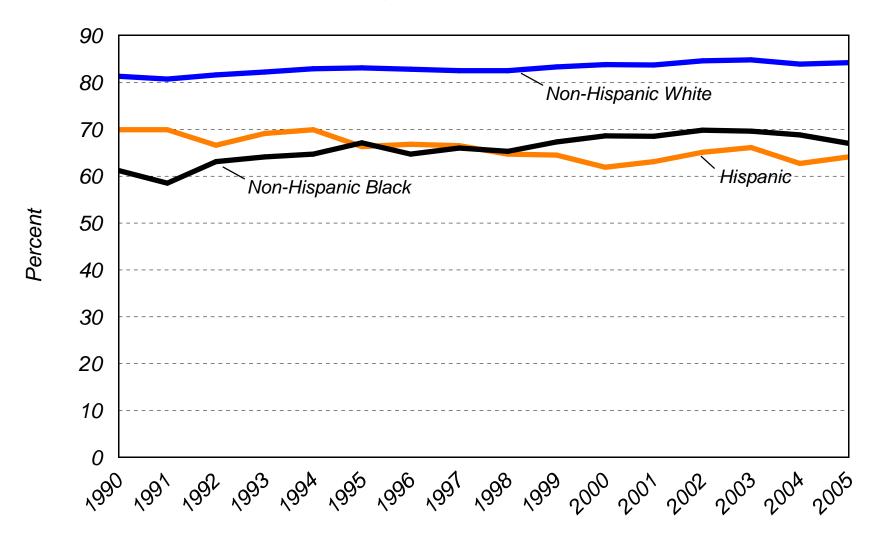


Figure 31

#### Percentage of Births to Mothers Who Began Prenatal Care in First Trimester By Race and Hispanic Origin



### Percent Distribution of Births According to Adequacy of Prenatal Care By Race and Hispanic Origin of Mother

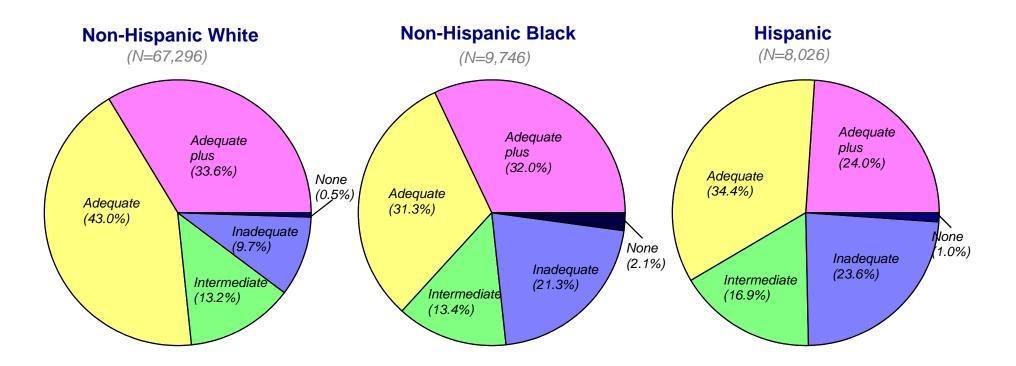
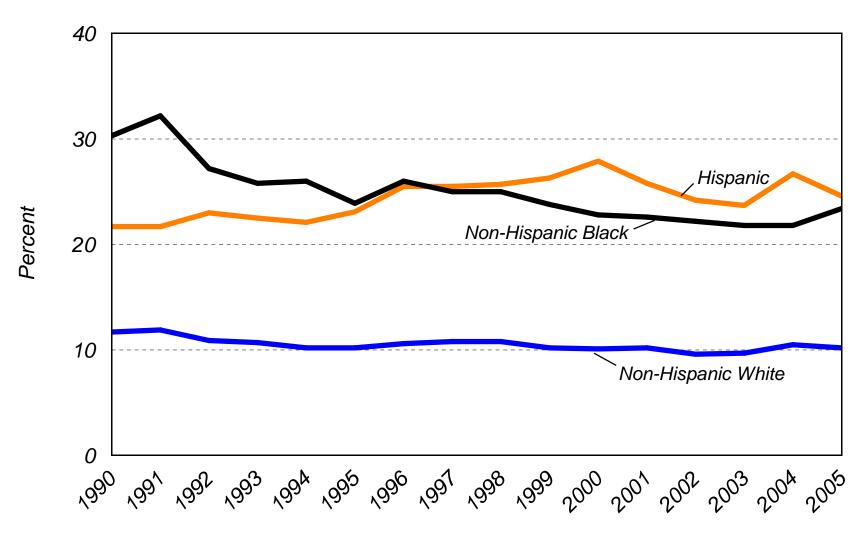


Figure 33

### Percentage of Births to Mothers Who Received Inadequate or No Prenatal Care By Race and Hispanic Origin

Indiana, 1990-2005 Live Births



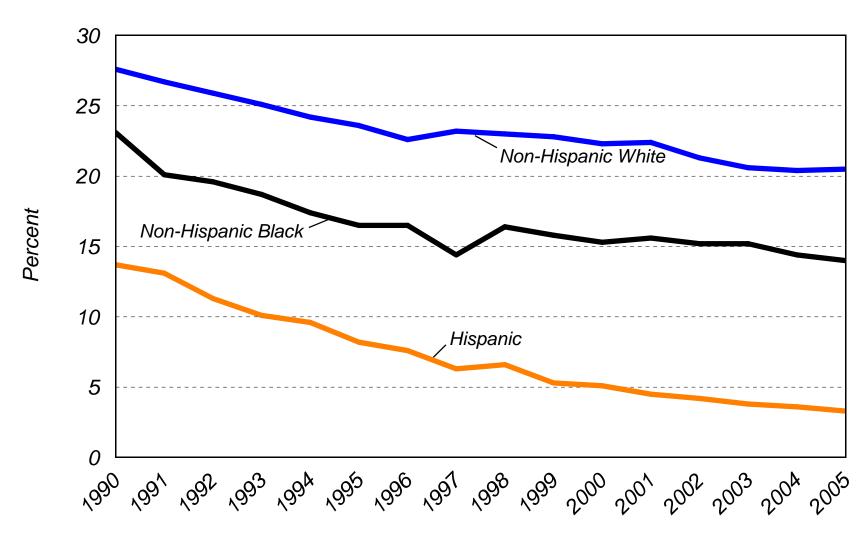
Note: Adequacy of prenatal care is based on APNCU (Kotelchuck) Index. \*Includes mothers who received no prenatal care. Source: Indiana State Department of Health, Maternal and Children's Special Health Care Services

Report: Trends in Birth Outcomes and Maternal Characteristics in Indiana: Statistics from live birth data 1990-2005, Table 5-7

Figure 34

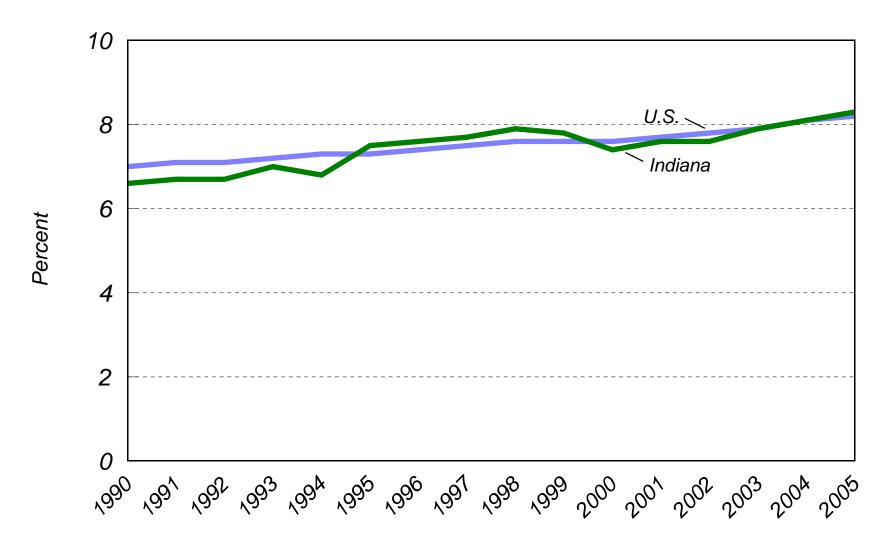
#### Percentage of Births to Mothers Who Smoked During Pregnancy By Race and Hispanic Origin

Indiana, 1990-2005 Live Births



#### **Percent Low Birth Weight**

Indiana and U.S., 1990-2005 Live Births



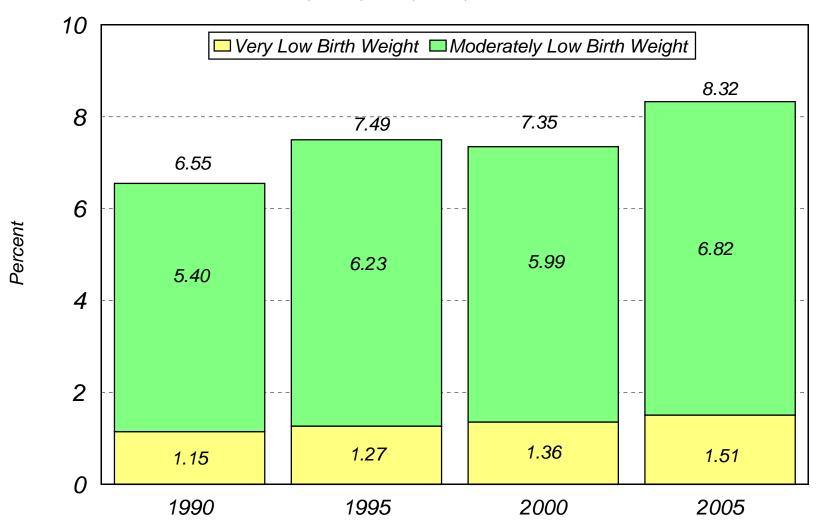
#### Note: Low Birth Weight is less than 2,500 grams

Source, U.S. data: National vital statistics reports/Health E-Stats, National Center for Health Statistics/Center for Disease Control and Prevention Source, Indiana data: Indiana State Department of Health, Maternal and Children's Special Health Care Services
Report: Trends in Birth Outcomes and Maternal Characteristics in Indiana: Statistics from live birth data 1990-2005, Table 2

Figure 36

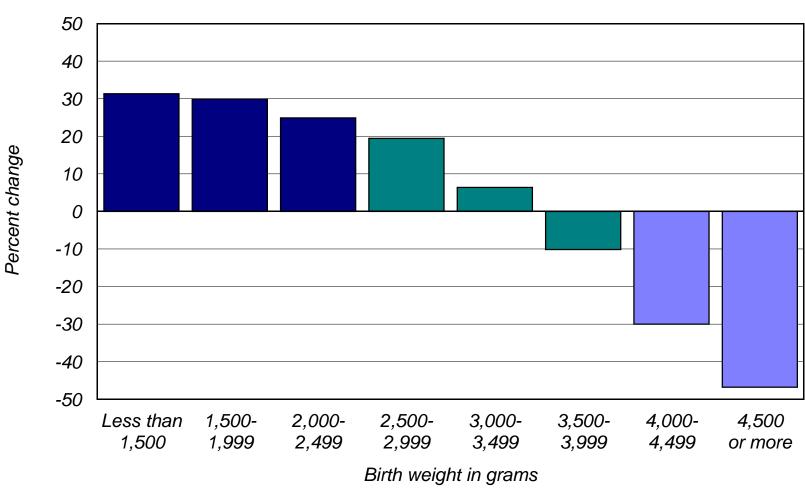
### Percent Very Low Birth Weight, Moderately Low Birth Weight, and Low Birth Weight

Indiana, 1990, 1995, 2000, and 2005 Live Births

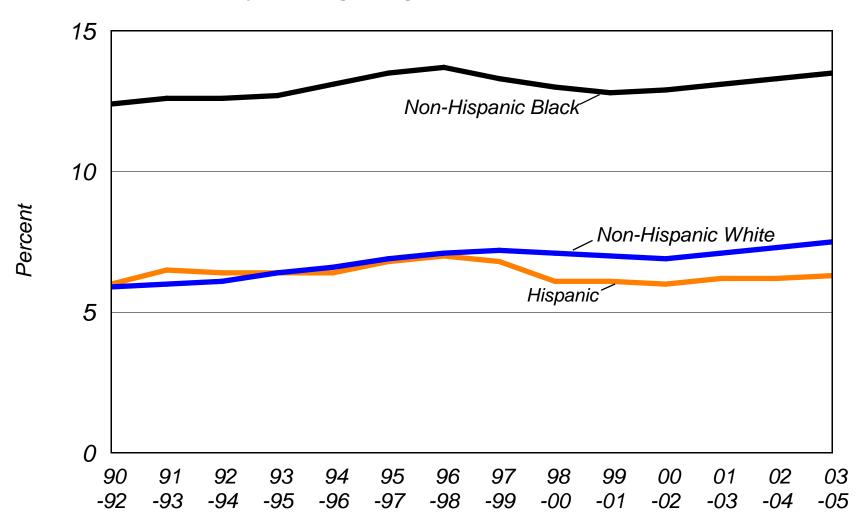


#### **Percentage Change in Birth Weight**





### Percent Low Birth Weight by Race and Hispanic Origin of Mother



# Percent Very Low Birth Weight by Race and Hispanic Origin of Mother

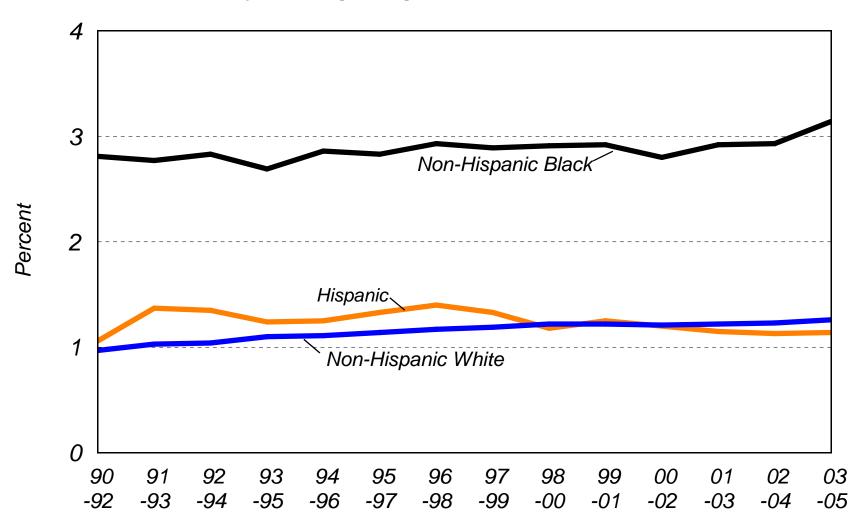


Figure 40

### Percent Very Low Birth Weight, Moderately Low Birth Weight, and Low Birth Weight By Race and Hispanic Origin of Mother



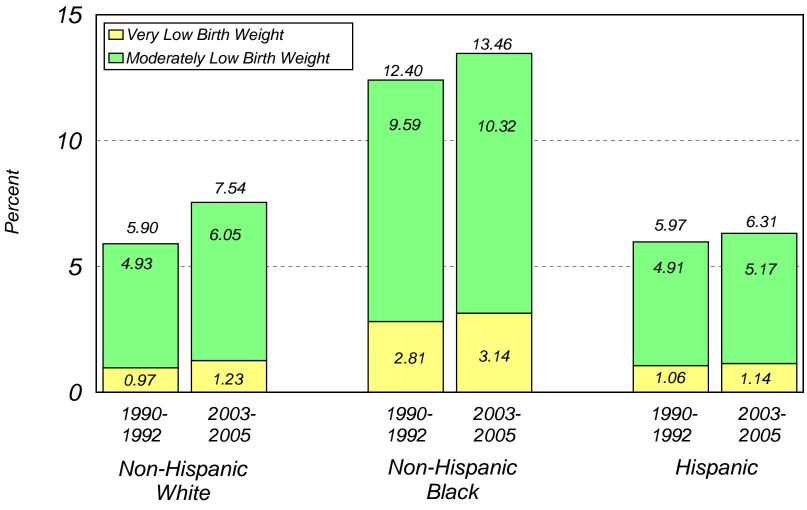


Figure 41

### Percent Low Birth Weight Birth Among Singleton Births Compared to All Births

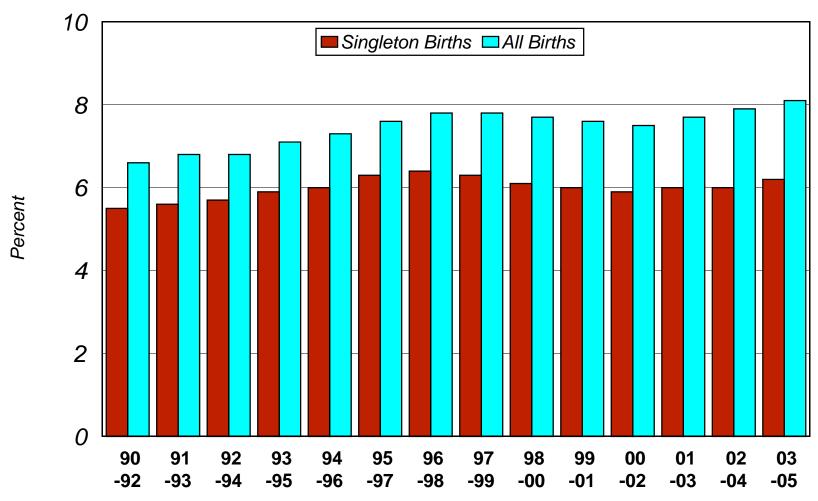
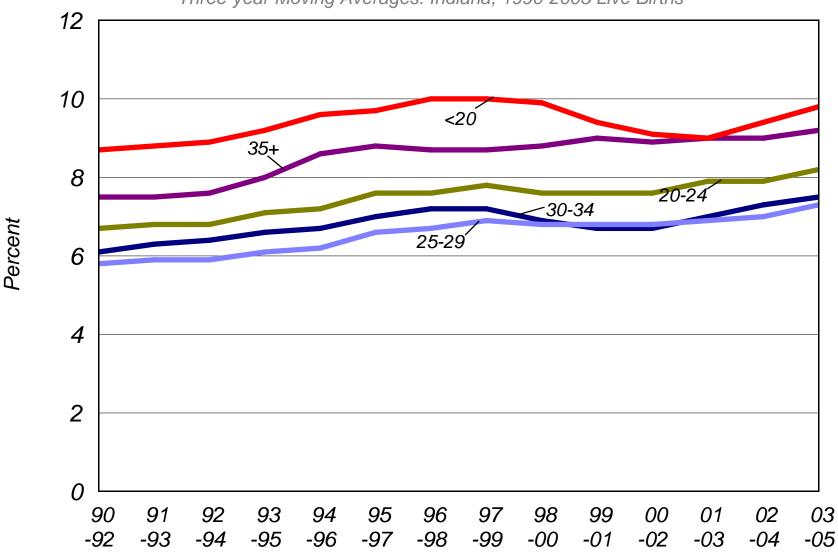


Figure 42

#### **Percent Low Birth Weight by Age of Mother**





Note: Low Birth Weight is less than 2,500 grams

Source: Indiana State Department of Health, Maternal and Children's Special Health Care Services Report: Trends in Birth Outcomes and Maternal Characteristics in Indiana: Statistics from live birth data 1990-2005, Table 10

Figure 43

#### Percent Low Birth Weight By Age, Race, and Hispanic Origin of Mother

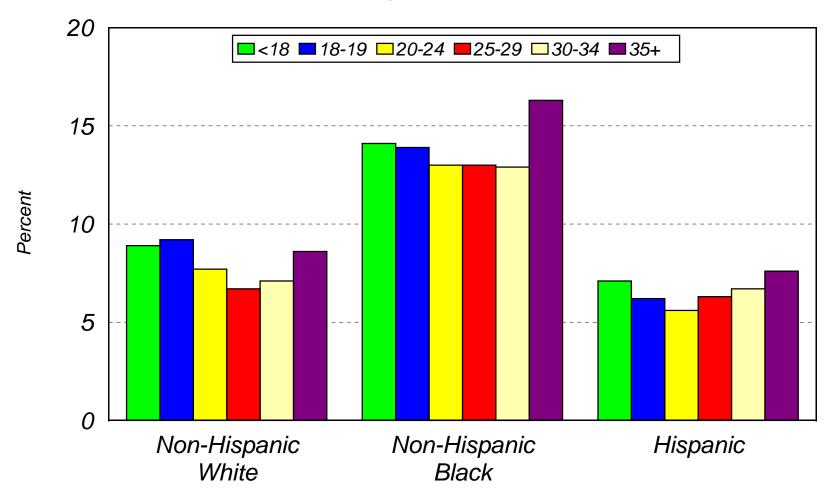
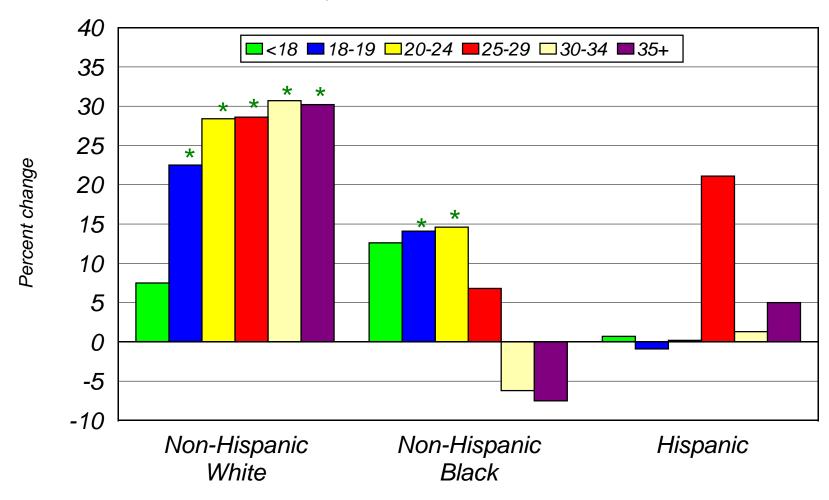


Figure 44

#### Percentage Change in Low Birth Weight Rate By Age, Race, and Hispanic Origin of Mother

Indiana, 1990-1992 and 2003-2005 Live Births



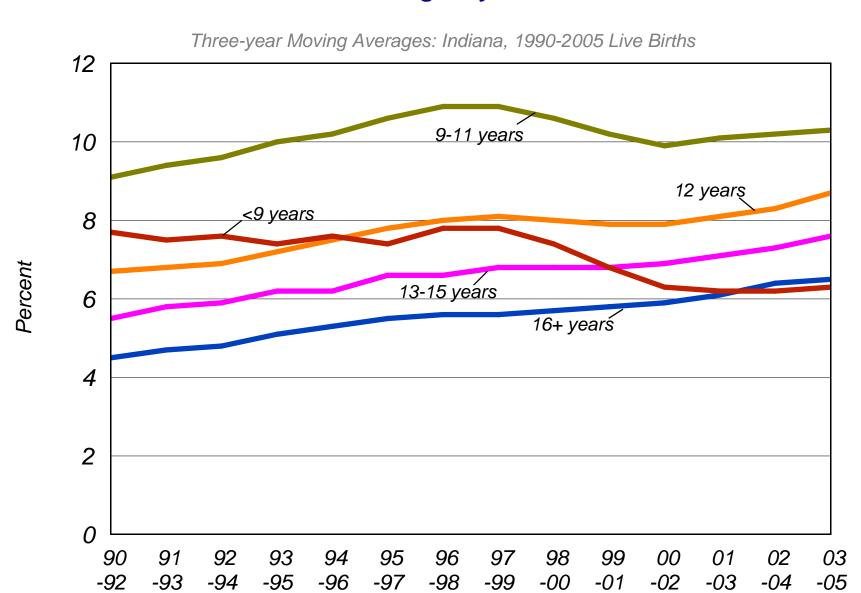
<sup>\*</sup>Significant, p<0.05.

Note: Low Birth Weight is less than 2,500 grams

Source: Indiana State Department of Health, Maternal and Children's Special Health Care Services
Report: Trends in Birth Outcomes and Maternal Characteristics in Indiana: Statistics from live birth data 1990-2005, Tables 13-15

Figure 45

#### **Percent Low Birth Weight by Education of Mother**



Note: Low Birth Weight is less than 2,500 grams

Source: Indiana State Department of Health, Maternal and Children's Special Health Care Services
Report: Trends in Birth Outcomes and Maternal Characteristics in Indiana: Statistics from live birth data 1990-2005, Table 10

Figure 46

### Percent Low Birth Weight By Education, Race, and Hispanic Origin of Mother

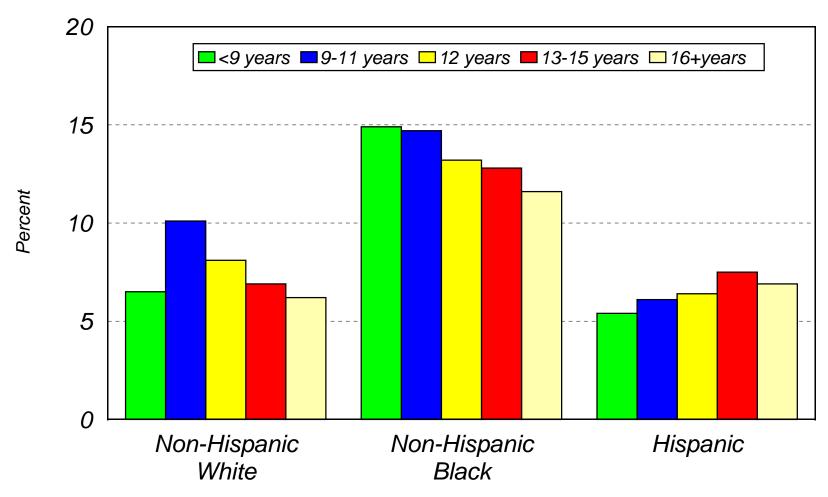


Figure 47

#### Percent Low Birth Weight Among Adult Mothers with Less Than 12 years of Education By Race and Hispanic Origin of Mother

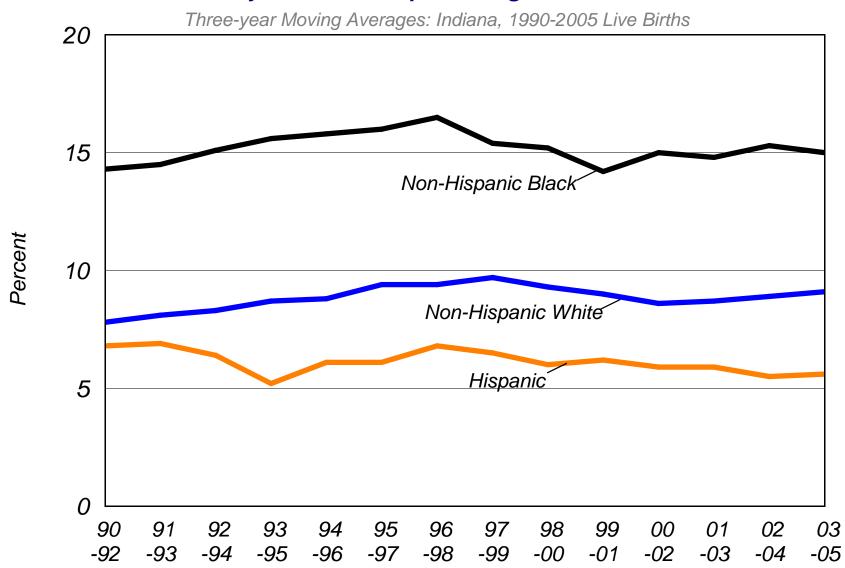
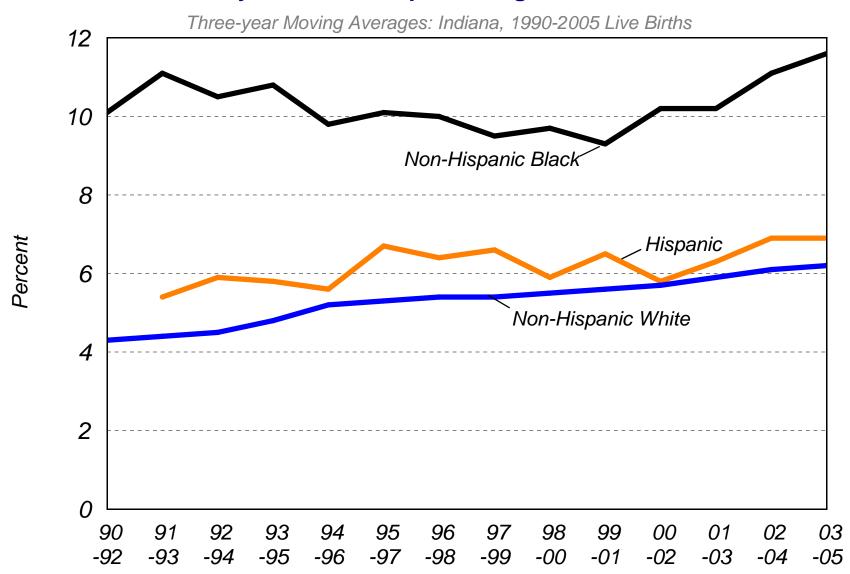


Figure 48

#### Percent Low Birth Weight Among Mothers with 16 or More Years of Education By Race and Hispanic Origin of Mother



Note: Low Birth Weight is less than 2,500 grams

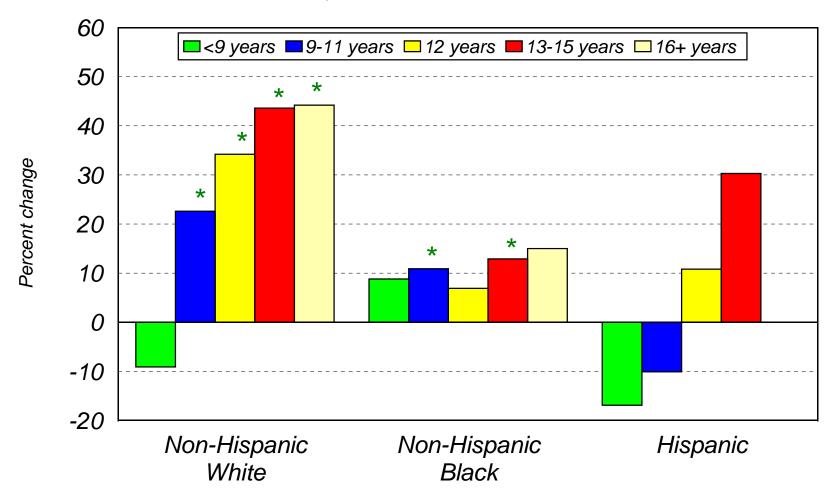
Source: Indiana State Department of Health, Maternal and Children's Special Health Care Services

Report: Trends in Birth Outcomes and Maternal Characteristics in Indiana: Statistics from live birth data 1990-2005, Table 13-15

Figure 49

#### Percentage Change in Low Birth Weight Rate By Education, Race, and Hispanic Origin of Mother

Indiana, 1990-1992 and 2003-2005 Live Births



<sup>\*</sup>Significant, p<0.05.

Note: Low Birth Weight is less than 2,500 grams

Source: Indiana State Department of Health, Maternal and Children's Special Health Care Services
Report: Trends in Birth Outcomes and Maternal Characteristics in Indiana: Statistics from live birth data 1990-2005, Tables 13-15

Figure 50

### Percent Low Birth Weight By Live-birth Order, Race, and Hispanic Origin of Mother

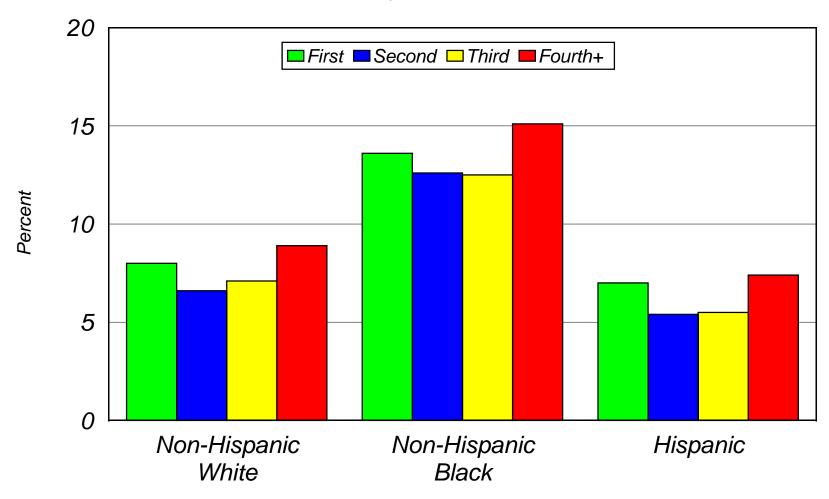
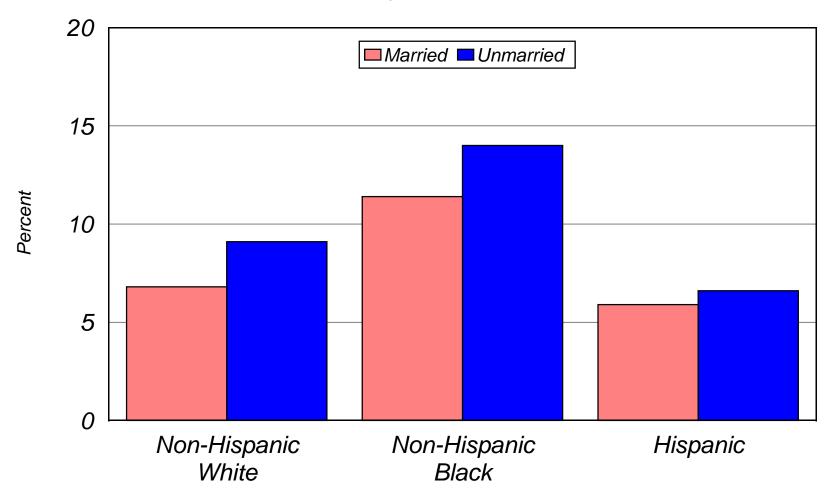


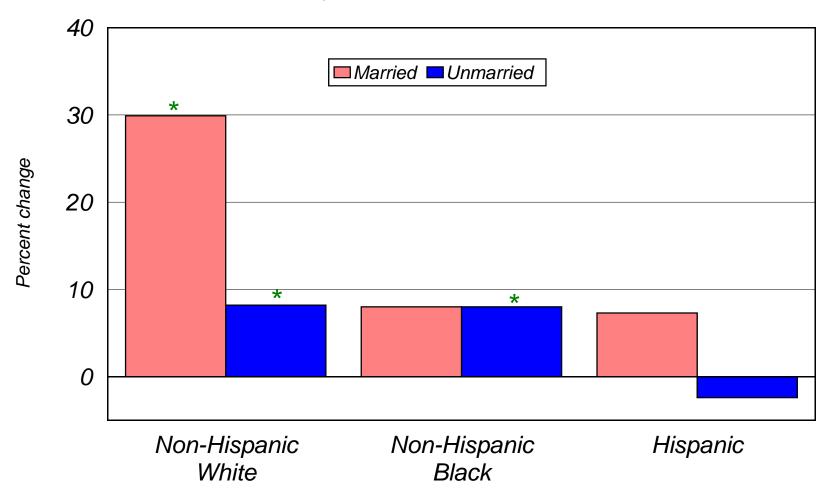
Figure 51

# Percent Low Birth Weight By Marital Status, Race, and Hispanic Origin of Mother



#### Percentage Change in Low Birth Weight Rate By Marital Status, Race, and Hispanic Origin of Mother

Indiana, 1990-1992 and 2003-2005 Live Births



<sup>\*</sup>Significant, p<0.05.

Note: Low Birth Weight is less than 2,500 grams

Source: Indiana State Department of Health, Maternal and Children's Special Health Care Services
Report: Trends in Birth Outcomes and Maternal Characteristics in Indiana: Statistics from live birth data 1990-2005, Tables 13-15

Figure 53

### Percent Low Birth Weight By Trimester Prenatal Care Began, Race, and Hispanic Origin of Mother

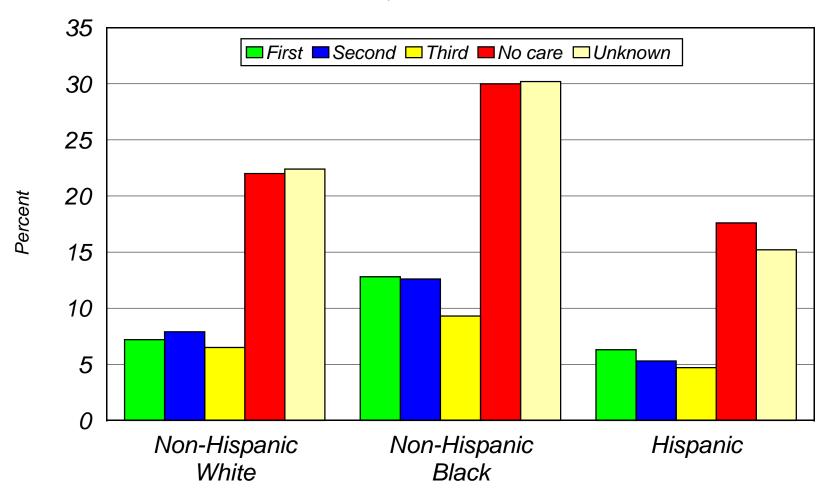


Figure 54

### Percent Low Birth Weight By Adequacy of Prenatal Care Utilization, Race, and Hispanic Origin of Mother

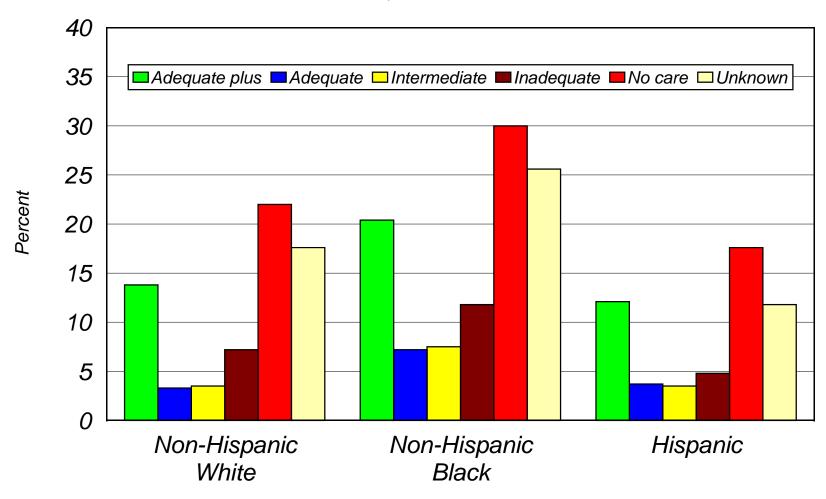
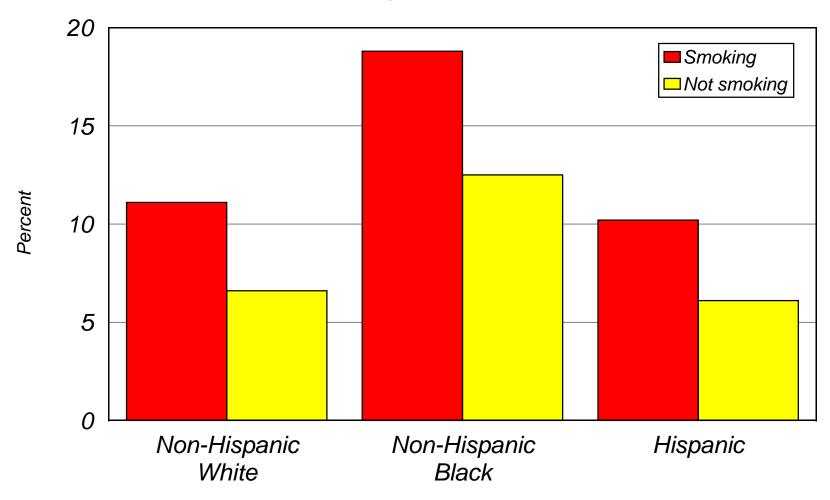


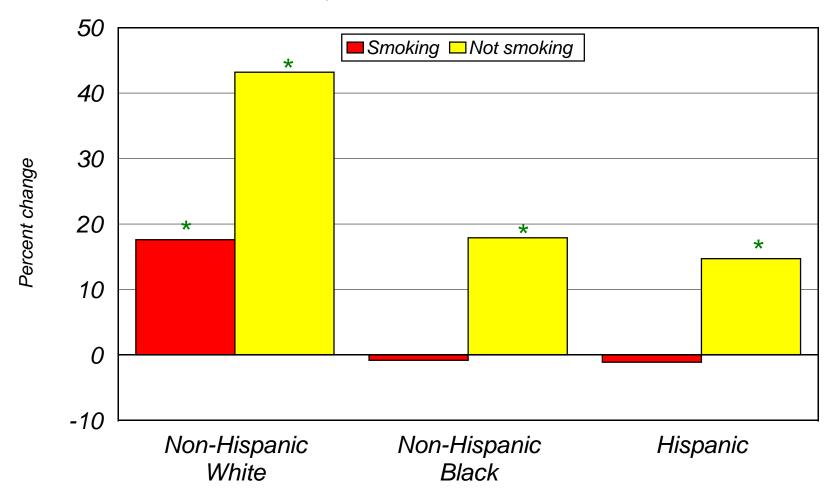
Figure 55

### Percent Low Birth Weight By Smoking Status, Race, and Hispanic Origin of Mother



#### Percentage Change in Low Birth Weight Rate By Smoking Status, Race, and Hispanic Origin of Mother

Indiana, 1990-1992 and 2003-2005 Live Births



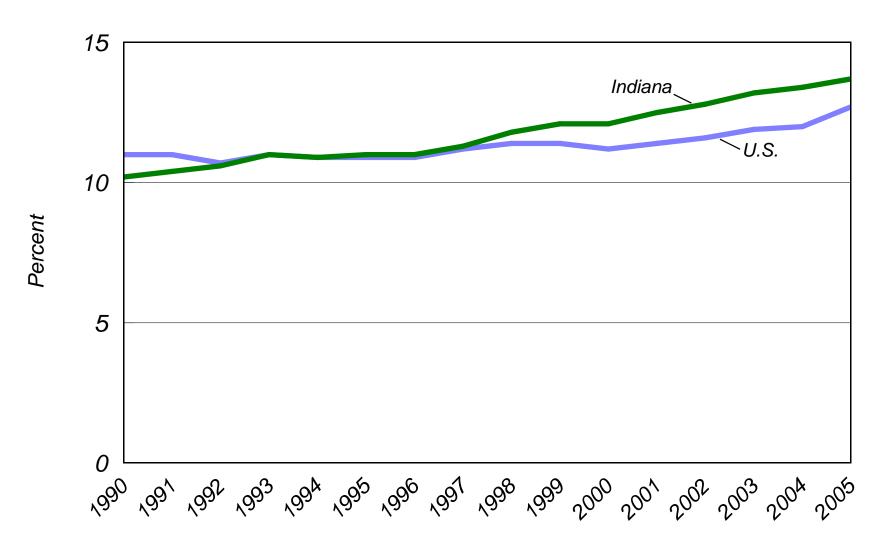
<sup>\*</sup>Significant, p<0.05.

Note: Low Birth Weight is less than 2,500 grams

Source: Indiana State Department of Health, Maternal and Children's Special Health Care Services
Report: Trends in Birth Outcomes and Maternal Characteristics in Indiana: Statistics from live birth data 1990-2005, Tables 13-15

#### **Percent Preterm Births**

Indiana and U.S., 1990-2005 Live Births

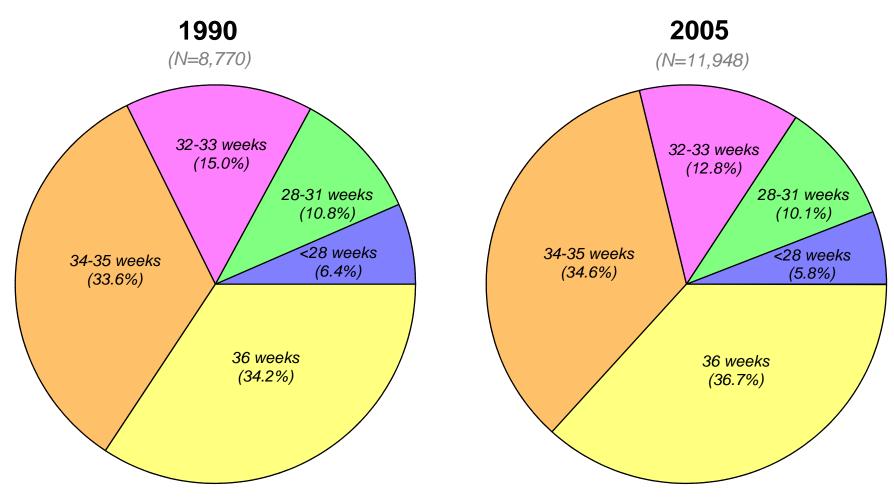


Note: Preterm is less than 37 completed weeks of gestation.

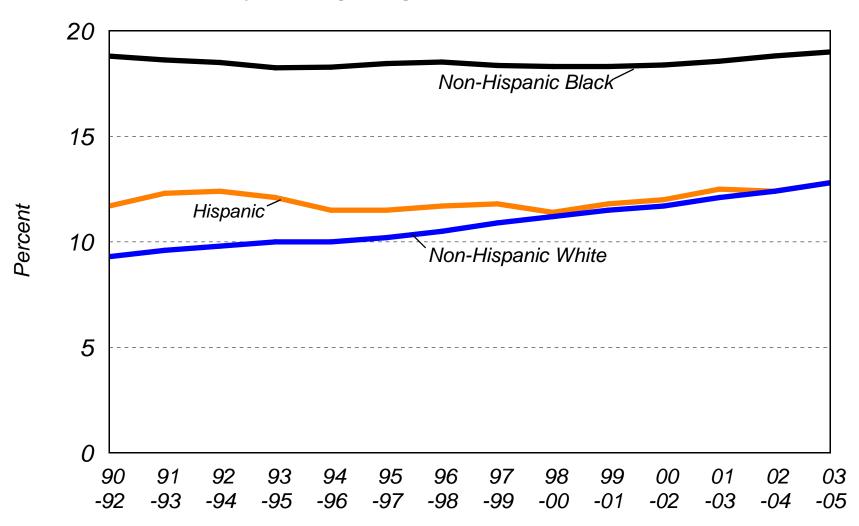
Source, U.S. data: National vital statistics reports/Health E-Stats, National Center for Health Statistics/Center for Disease Control and Prevention Source, Indiana data: Indiana State Department of Health, Maternal and Children's Special Health Care Services
Report: Trends in Birth Outcomes and Maternal Characteristics in Indiana: Statistics from live birth data 1990-2005, Table 2

### Percent Distribution of Preterm Births By Gestational Age

Indiana, 1990 and 2005 Live Births



### Percent Preterm Births by Race and Hispanic Origin of Mother



# Percent Very Preterm Births by Race and Hispanic Origin of Mother

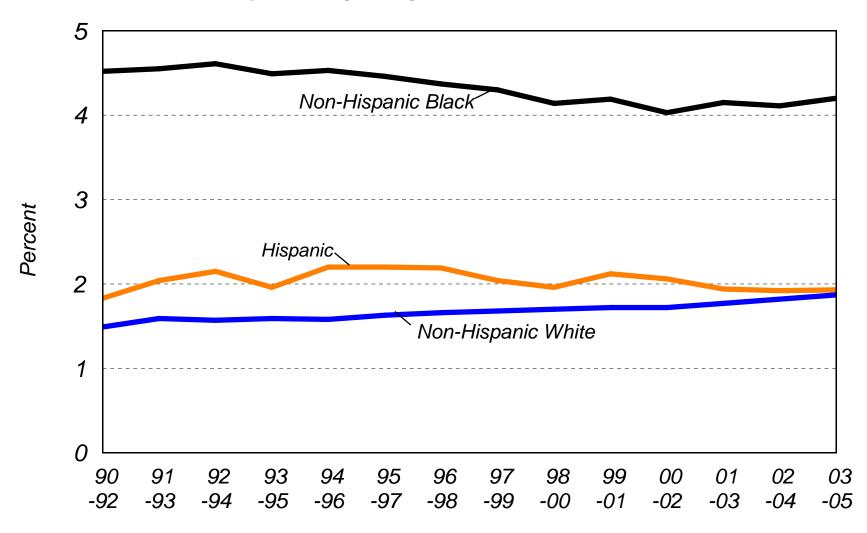
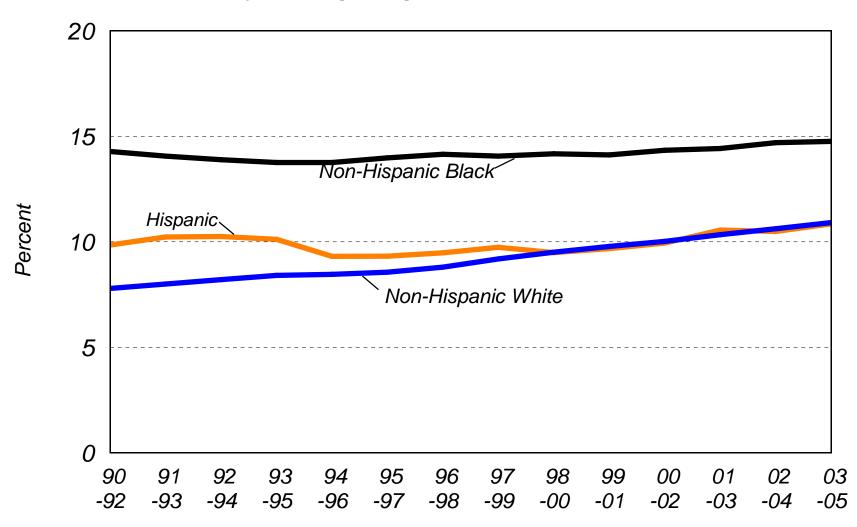


Figure 61

# Percent Moderately Preterm Births by Race and Hispanic Origin of Mother



#### Percent Preterm Births By Method of Delivery

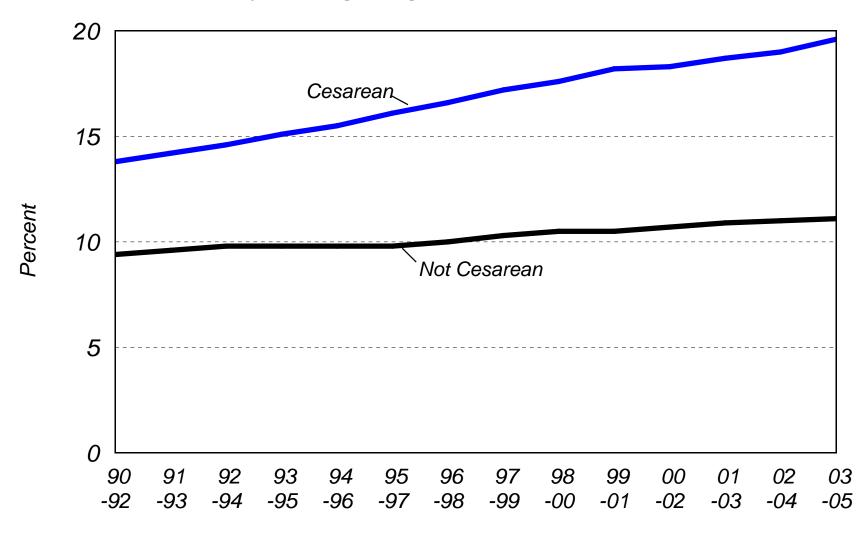


Figure 63

#### Percentage Change in Gestational Age Among Singlton Births

Indiana, 1990 and 2005 Live Births

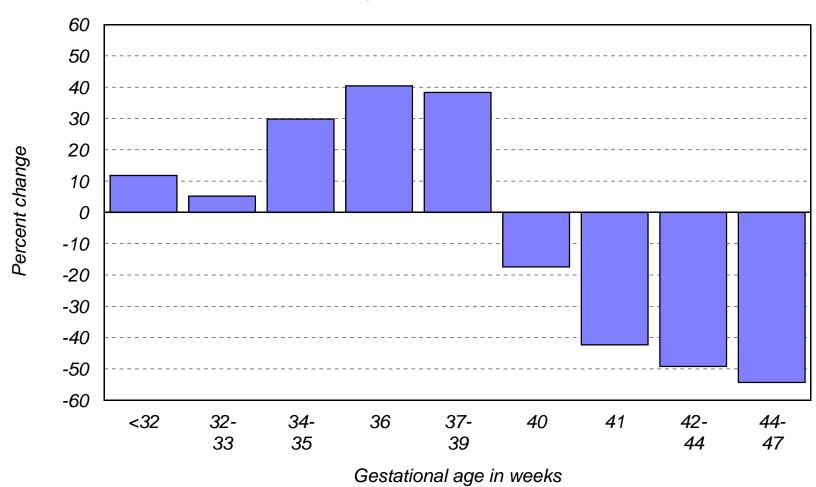
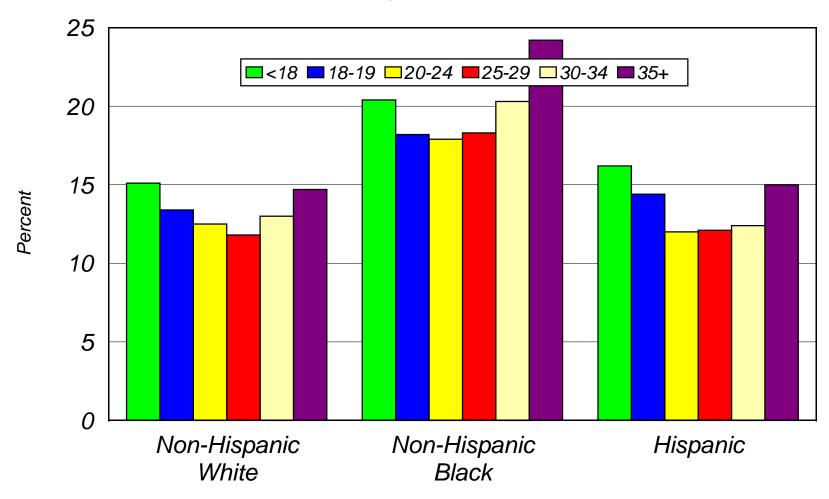


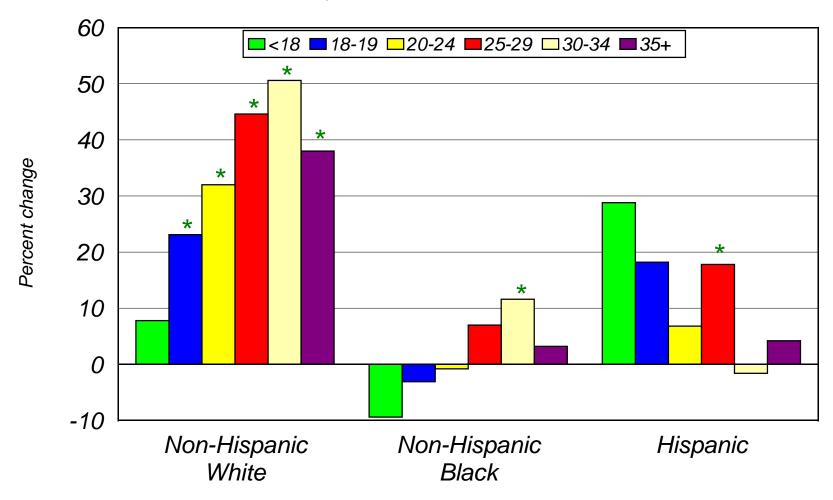
Figure 64

### Percent Preterm Births By Age, Race, and Hispanic Origin of Mother



#### Percentage Change in Preterm Births By Age, Race, and Hispanic Origin of Mother

Indiana, 1990-1992 and 2003-2005 Live Births



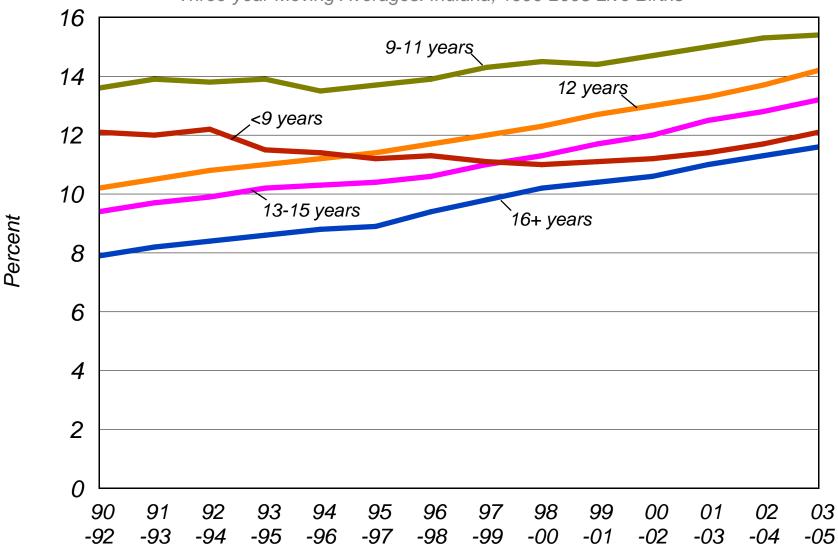
<sup>\*</sup>Significant, p<0.05.

Note: Preterm Birth is less than 37 completed weeks of gestation.

Source: Indiana State Department of Health, Maternal and Children's Special Health Care Services Report: Trends in Birth Outcomes and Maternal Characteristics in Indiana: Statistics from live birth data 1990-2005, Tables 19-21

#### **Percent Preterm Births By Education of Mother**





Note: Preterm Birth is less than 37 completed weeks of gestation.

Source: Indiana State Department of Health, Maternal and Children's Special Health Care Services
Report: Trends in Birth Outcomes and Maternal Characteristics in Indiana: Statistics from live birth data 1990-2005, Table 16

Figure 67

### Percent Preterm Birth By Education, Race, and Hispanic Origin of Mother

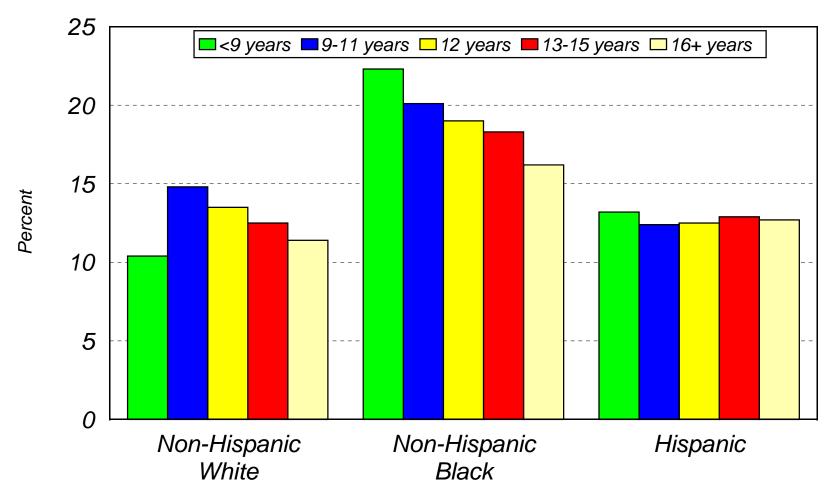
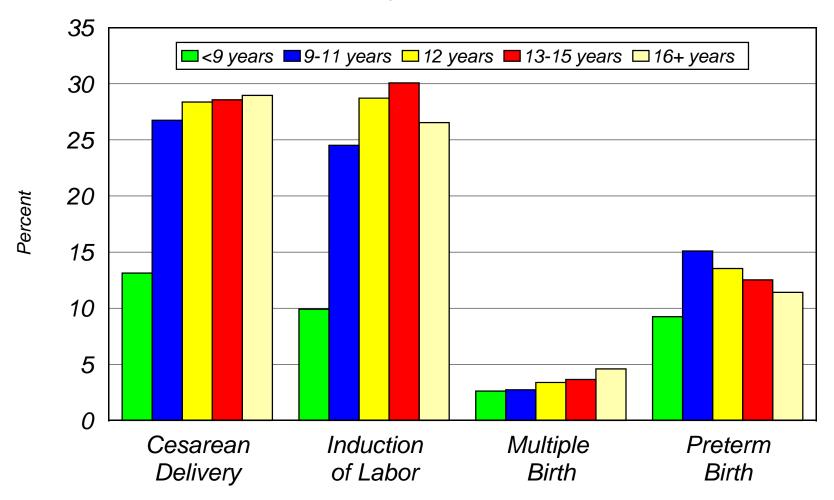


Figure 68

### Rate of Cesarean Delivery, Inducation of Labor, Multiple Births, and Preterm Birhs By Years of Education Among Adult Non-Hispanic White Mothers<sup>1</sup>

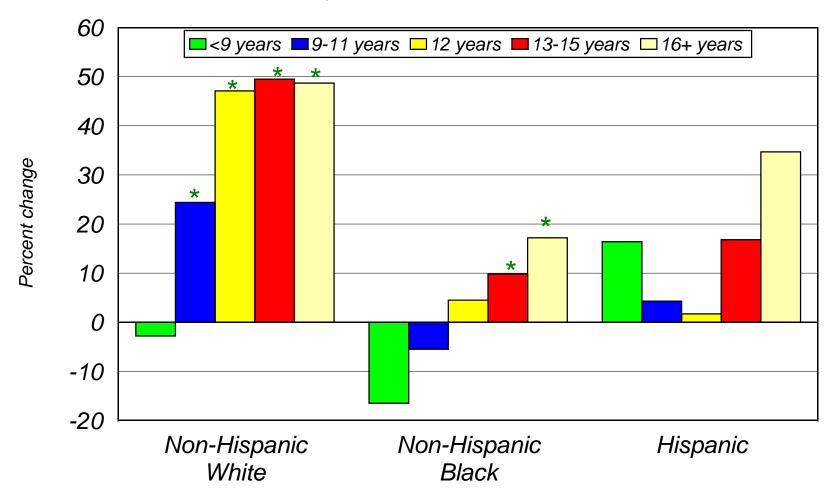
Indiana, 2003-2005 Live Births



Note: Preterm Birth is less than 37 completed weeks of gestation.

# Percentage Change in Preterm Births By Education, Race, and Hispanic Origin of Mother

Indiana, 1990-1992 and 2003-2005 Live Births



<sup>\*</sup>Significant, p<0.05.

Note: Preterm Birth is less than 37 completed weeks of gestation.

Source: Indiana State Department of Health, Maternal and Children's Special Health Care Services
Report: Trends in Birth Outcomes and Maternal Characteristics in Indiana: Statistics from live birth data 1990-2005, Tables 19-21

## **Percent Preterm Births By Live-birth Order**

Indiana, 1990-1992 and 2003-2005 Live Births

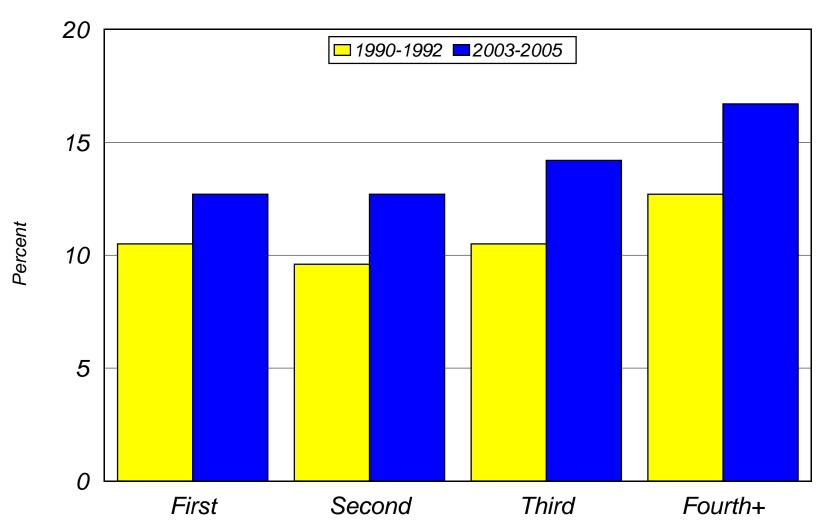
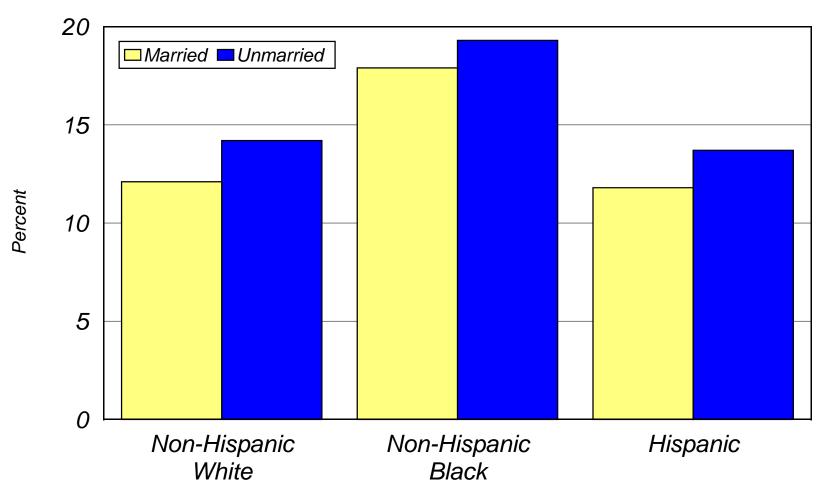


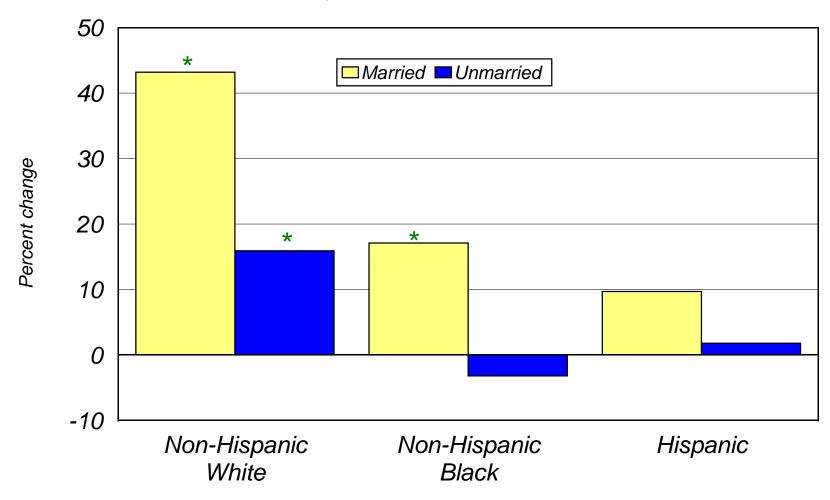
Figure 71

# Percent Preterm Births By Marital Status, Race, and Hispanic Origin of Mother



# Percentage Change in Preterm Births By Marital Status, Race, and Hispanic Origin of Mother

Indiana, 1990-1992 and 2003-2005 Live Births



<sup>\*</sup>Significant, p<0.05.

Note: Preterm Birth is less than 37 completed weeks of gestation.

Source: Indiana State Department of Health, Maternal and Children's Special Health Care Services
Report: Trends in Birth Outcomes and Maternal Characteristics in Indiana: Statistics from live birth data 1990-2005, Tables 19-21

Figure 73

# Percent Preterm Births By Trimester Prenatal Care Began, Race, and Hispanic Origin of Mother

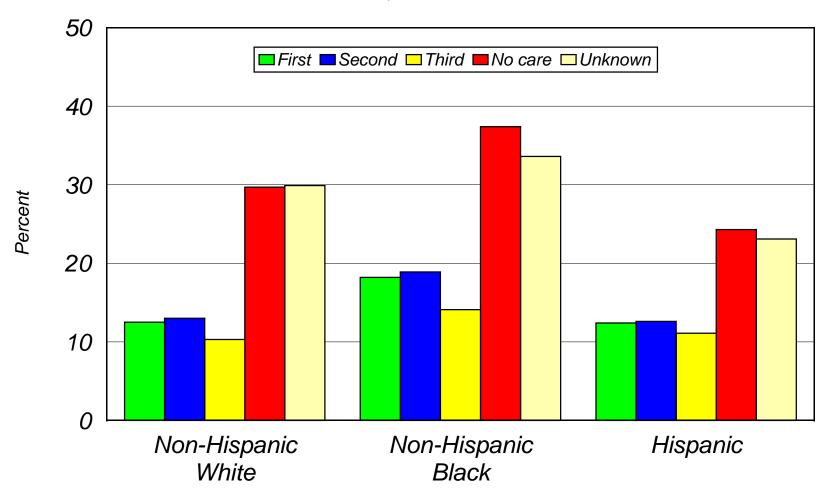


Figure 74

# Percent Preterm Births By Adequacy of Prenatal Care Utilization, Race, and Hispanic Origin of Mother

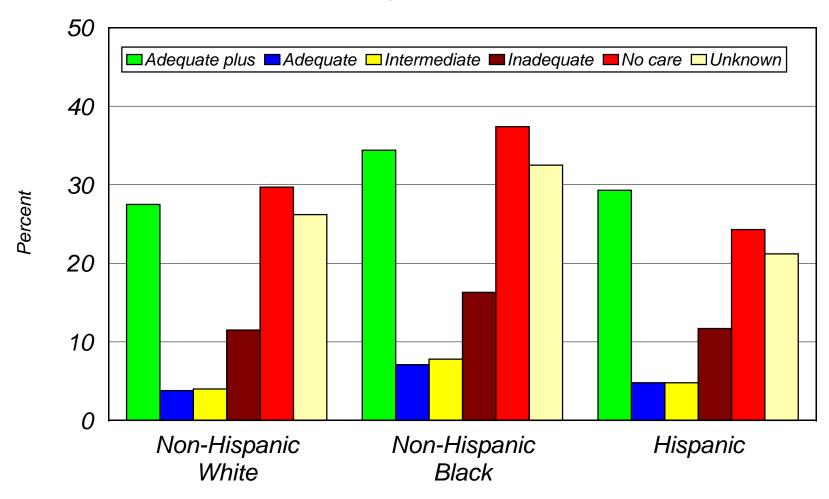


Figure 75

# Percent Preterm Births By Smoking Status, Race, and Hispanic Origin of Mother

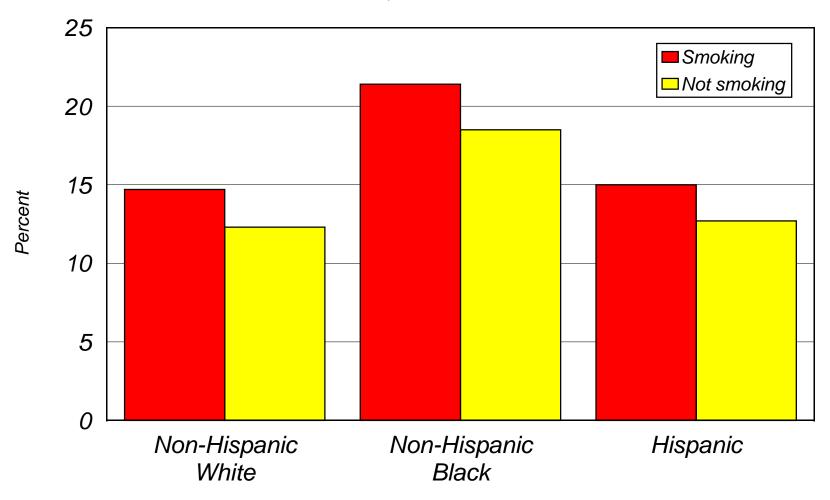


Table A-1. Live births by race and Hispanic origin of mother: Indiana, 1990-2005

Race/Hispanic origin of mother	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
						L	ive births									
All races/origins	85,991	85,708	84,058	83,755	82,530	82,918	83,157	83,385	85,055	85,489	87,700	86,122	84,839	86,382	87,125	87,088
Race																
White	75,376	75,220	73,707	73,406	72,445	73,001	73,074	73,344	74,374	74,787	76,753	75,056	74,013	75,422	75,680	75,464
Black	9,421	9,483	9,382	9,314	8,938	8,752	8,746	8,739	9,216	9,244	9,421	9,531	9,243	9,288	9,582	9,820
Other	959	805	843	877	944	989	1,160	1,153	1,275	1,331	1,430	1,459	1,498	1,583	1,766	1,702
Unknown race	235	200	126	158	203	176	177	149	190	127	96	76	85	89	97	102
Hispanic Origin, Race																
Hispanic, total	1,915	1,832	1,939	2,124	2,311	2,525	2,941	3,393	3,781	4,383	5,427	5,865	6,145	6,763	7,237	8,026
Non-Hispanic, total	83,805	83,691	82,006	81,331	79,856	80,242	79,215	79,178	80,234	80,467	81,950	79,883	78,346	79,261	79,537	78,723
Non-Hispanic, white	73,623	73,409	71,759	71,056	69,886	70,488	69,321	69,252	69,760	69,973	71,182	68,926	67,655	68,465	68,253	67,296
Non-Hispanic, black	9,347	9,435	9,358	9,289	8,908	8,695	8,686	8,708	9,172	9,200	9,368	9,495	9,205	9,246	9,534	9,746
Non-Hispanic, other races	734	749	793	864	919	946	1,078	1,097	1,190	1,223	1,342	1,417	1,446	1,508	1,710	1,632
Non-Hispanic, unknown	101	98	96	122	143	113	130	121	112	71	58	45	40	42	40	49
Unknown origin	271	185	113	300	363	151	1,001	814	1,040	639	323	374	348	358	351	339

Source: Indiana State Department of Health, Maternal and Children's Special Health Care Services Report: Trends in Birth Outcomes and Maternal Characteristics in Indiana: Statistics from live birth data 1990-2005.

Table A-2. Live births by selected characteristics of infant and mother among all races: Indiana, 1990-2005

Characteristics	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Total	85,991	85,708	84,058	83,755	82,530	82,918	83,157	83,385	85,055	85,489	87,700	86,122	84,839	86,382	87,125	87,088
Plurality																
Single births	83,907	83,612	82,039	81,627	80,494	80,711	80,970	81,098	82,522	82,702	85,021	83,330	81,891	83,469	84,125	84,064
Multiple births	2,061	2,094	2,012	2,128	2,026	2,206	2,187	2,287	2,533	2,787	2,679	2,790	2,946	2,912	3,000	3,023
Unknown	23	2	7	0	10	1	0	0	0	0	0	2	2	1	0	1
Method of delivery																
Cesarean	18,339	18,457	18,158	17,891	17,497	17,182	17,016	16,491	17,096	17,661	19,133	20,288	21,316	22,399	23,867	24,657
Not cesarean	65,532	66,902	65,709	65,708	64,836	65,529	65,947	66,675	67,815	67,649	68,384	65,718	63,433	63,925	63,215	62,366
Unknown	2,120	349	191	156	197	207	194	219	144	179	183	116	90	58	43	65
Birth weight (grams)																
<2,500	5,625	5,710	5,622	5,845	5,628	6,195	6,304	6,399	6,717	6,655	6,417	6,522	6,434	6,760	7,019	7,220
<1,500	985	1,023	990	1,102	1,028	1,049	1,162	1,110	1,172	1,223	1,187	1,197	1,167	1,208	1,242	1,307
1,500-2,499	4,640	4,687	4,632	4,743	4,600	5,146	5,142	5,289	5,545	5,432	5,230	5,332	5,267	5,552	5,777	5,913
>=2,500	80,247	79,899	78,377	77,860	76,729	76,461	76,383	76,619	77,948	78,454	80,861	79,198	78,061	79,258	79,746	79,528
Unknown	119	99	59	50	173	262	470	367	390	380	422	395	344	364	360	340
Gestational age (weeks)																
<37	8,770	8,920	8,884	9,187	8,951	9,116	9,168	9,410	10,008	10,322	10,640	10,778	10,824	11,389	11,659	11,948
<32	1,510	1,594	1,593	1,700	1,516	1,554	1,703	1,628	1,641	1,769	1,685	1,748	1,703	1,786	1,844	1,897
32-36	7,260	7,326	7,291	7,487	7,435	7,562	7,465	7,782	8,367	8,553	8,955	9,030	9,121	9,603	9,815	10,051
>=37	77,029	76,688	75,137	74,536	73,545	73,767	73,976	73,966	75,042	75,158	77,053	75,338	74,008	74,979	75,455	75,127
Unknown	192	100	37	32	34	35	13	9	5	9	7	6	7	14	11	13
Age of mother (years)																
<20	12,513	12,362	11,857	11,842	11,942	12,193	12,016	11,735	11,730	11,301	10,968	10,213	9,701	9,498	9,588	9,604
<18	4,328	4,310	4,278	4,249	4,455	4,580	4,381	4,304	3,920	3,693	3,484	3,165	3,062	2,947	2,866	2,864
18-19	8,185	8,052	7,579	7,593	7,487	7,613	7,635	7,431	7,810	7,608	7,484	7,048	6,639	6,551	6,722	6,740
>=20	73,389	73,325	72,167	71,895	70,523	70,718	71,134	71,640	73,313	74,158	76,715	75,905	75,130	76,872	77,487	77,475
20-24	25,257	25,494	25,178	24,827	24,063	23,456	23,174	23,139	23,946	24,264	25,442	24,969	24,731	25,015	24,960	24,602
25-29	27,097	25,988	25,044	24,380	23,113	23,376	23,589	24,109	24,750	24,833	25,094	24,535	24,101	24,872	25,283	25,744
30-34	15,577	16,021	15,940	16,289	16,700	16,716	16,797	16,626	16,602	16,794	17,351	17,813	17,615	18,201	18,175	17,805
>=35	5,458	5,822	6,005	6,399	6,647	7,170	7,574	7,766	8,015	8,267	8,828	8,588	8,683	8,784	9,069	9,024
Unknown	89	21	34	18	65	7	7	10	12	30	17	4	8	12	50	9
Age / Education (years)																
<20 / <appropriate< td=""><td>3,666</td><td>3,538</td><td>3,351</td><td>3,084</td><td>3,002</td><td>3,015</td><td>3,157</td><td>3,178</td><td>3,304</td><td>3,153</td><td>3,128</td><td>3,015</td><td>2,946</td><td>2,753</td><td>2,785</td><td>2,792</td></appropriate<>	3,666	3,538	3,351	3,084	3,002	3,015	3,157	3,178	3,304	3,153	3,128	3,015	2,946	2,753	2,785	2,792
<20 / appropriate	8,695	8,696	8,430	8,657	8,781	9,026	8,663	8,428	8,330	8,015	7,711	7,121	6,675	6,641	6,705	6,700
>=20 / <12	10,259	10,273	9,978	9,700	8,977	9,006	9,223	9,505	10,228	10,552	11,559	11,825	12,002	12,583	12,741	13,275
>=20 / 12	33,600	32,898	31,479	30,464	28,544	27,333	26,567	26,388	26,237	26,202	26,372	25,401	24,558	23,924	24,196	23,564
>=20 / >12	29,074	29,764	30,431	31,273	31,931	33,460	34,473	35,040	36,221	36,731	38,205	38,280	38,202	39,887	40,027	39,948
Unknown	697	539	389	577	1,295	1,078	1,074	846	735	836	725	480	456	594	671	809

Table A-2. Live births by selected characteristics of infant and mother among all races: Indiana, 1990-2005--Con.

Characteristics	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Education (years)																
<12	18,141	18,120	17,534	17,073	16,350	16,530	16,609	16,829	17,300	17,352	18,052	17,939	17,893	18,293	18,448	18,995
0-8	2,727	2,902	2,897	2,821	2,858	3,016	3,019	3,143	3,384	3,501	4,022	4,097	4,289	4,539	4,518	4,811
9-11	15,414	15,218	14,637	14,252	13,492	13,514	13,590	13,686	13,916	13,851	14,030	13,842	13,604	13,754	13,930	14,184
=12	37,703	36,835	35,253	34,335	32,488	31,280	30,441	30,108	30,148	30,000	30,104	28,843	27,719	27,066	27,467	26,754
>12	29,531	30,236	30,908	31,784	32,458	34,035	35,038	35,610	36,882	37,328	38,831	38,863	38,775	40,439	40,587	40,533
13-15	16,596	16,986	17,273	17,394	17,442	18,273	18,665	18,541	19,205	19,156	19,601	19,575	19,140	19,873	19,668	19,549
>=16	12,935	13,250	13,635	14,390	15,016	15,762	16,373	17,069	17,677	18,172	19,230	19,288	19,635	20,566	20,919	20,984
Unknown	616	517	363	563	1,234	1,073	1,069	838	725	809	713	477	452	584	623	806
Live-birth order																
First	35,035	34,872	33,898	33,823	33,763	34,483	33,758	33,402	33,354	32,974	33,960	33,111	32,085	33,019	33,568	33,364
Second	28,419	28,141	27,863	27,531	26,951	26,944	27,112	26,993	27,895	28,299	28,370	28,043	27,710	27,601	27,667	27,467
Third	14,036	14,043	13,813	13,869	13,371	13,200	13,766	13,947	14,586	14,955	15,648	15,078	15,212	15,574	15,538	15,495
Fourth+	7,804	7,992	7,862	7,696	7,739	7,872	7,962	8,483	8,899	9,089	9,607	9,790	9,744	10,107	10,288	10,687
Unknown	697	660	622	836	706	419	559	560	321	172	115	100	88	81	64	75
Marital status																
Married	63,358	61,345	59,216	57,924	56,497	56,394	56,215	56,220	56,469	55,889	57,353	55,418	53,796	54,332	53,315	52,091
Unmarried	22,523	24,285	24,756	25,818	26,007	26,509	26,878	27,149	28,547	29,596	30,319	30,695	31,004	32,042	33,808	34,964
Unknown	110	78	86	13	26	15	64	16	39	4	28	9	39	8	2	33
Prenatal care began																
First trimester	66,220	65,666	65,470	65,815	65,319	65,938	65,299	65,486	66,941	67,985	70,124	68,307	68,331	69,608	69,055	68,723
After first trimester	16,730	17,343	16,466	15,788	14989	14832	15214	15491	16123	15727	16048	16249	14967	15120	16046	16191
Second trimester	14,049	14,608	14,046	13,480	12,766	12,674	12,881	13,079	13,522	13,228	13,424	13,663	12,690	12,507	13,104	13,554
Third trimester	2,681	2,735	2,420	2,308	2,223	2,158	2,333	2,412	2,601	2,499	2,624	2,586	2,277	2,613	2,942	2,637
No care	990	1,184	755	758	764	729	730	731	713	638	647	648	577	512	665	604
Unknown	2,051	1,515	1,367	1,394	1,458	1,419	1,914	1,677	1,278	1,139	881	918	964	1,142	1,359	1,570
Prenatal care index <sup>1</sup>																
Adequate plus	18,715	18,171	18,372	19,003	19,357	20,705	21,404	23,073	25,592	25,605	26,259	25,865	26,299	26,778	26,214	27,323
Adequate	38,071	38,424	38,253	38,409	38,200	37,971	36,763	36,153	35,737	36,434	37,272	36,059	36,024	36,128	35,860	34,550
Intermediate	14,306	14,586	14,245	13,496	12,238	11,706	10,910	10,429	10,195	10,186	11,026	10,840	10,317	11,110	11,483	11,426
Inadequate	10,537	10,683	9,813	9,463	8,899	8,830	9,239	9,481	9,881	9,609	10,103	10,125	9,389	9,668	10,382	10,369
No care	990	1,184	755	758	764	729	730	731	713	638	647	648	577	512	665	604
Unknown	3,372	2,660	2,620	2,626	3,072	2,977	4,111	3,518	2,937	3,017	2,393	2,585	2,233	2,186	2,521	2,816
Maternal smoking																
Smoking	22,841	21,738	20,648	19,844	18,791	18,347	17,528	17,759	18,095	17,852	17,722	17,380	16,210	15,954	15,707	15,589
Not smoking	62,698	63,540	63,102	63,570	63,354	64,216	65,258	65,362	66,707	67,398	69,690	68,507	68,453	70,267	71,240	71,325
Unknown	452	430	308	341	385	355	371	264	253	239	288	235	176	161	178	174

<sup>&</sup>lt;sup>1</sup>Based on APNCU index (Kotelchuck, M., Am J Public Health 1994;84:1414-1420).

Table A-3. Live births by selected characteristics of infant and mother among whites: Indiana, 1990-2005

Characteristics	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Total	75,376	75,220	73,707	73,406	72,445	73,001	73,074	73,344	74,374	74,787	76,753	75,056	74,013	75,422	75,680	75,464
Plurality																
Single births	73,585	73,366	71,991	71,551	70,686	71,068	71,162	71,340	72,186	72,339	74,439	72,679	71,485	72,879	73,054	72,904
Multiple births	1,772	1,852	1,713	1,855	1,757	1,933	1,912	2,004	2,188	2,448	2,314	2,377	2,528	2,543	2,626	2,559
Unknown	19	2	3	0	2	0	0	0	0	0	0	0	0	0	0	1
Method of delivery																
Cesarean	16,212	16,344	15,891	15,642	15,306	15,110	14,889	14,470	14,975	15,475	16,723	17,580	18,524	19,506	20,596	21,172
Not cesarean	57,616	58,590	57,643	57,616	56,967	57,695	58,001	58,669	59,263	59,152	59,862	57,373	55,413	55,870	55,048	54,232
Unknown	1,548	286	173	148	172	196	184	205	136	160	168	103	76	46	36	60
Birth weight (grams)																
<2,500	4,372	4,472	4,397	4,571	4,463	4,981	5,002	5,127	5,366	5,357	5,125	5,190	5,113	5,397	5,591	5,743
<1,500	717	764	698	848	762	804	879	851	889	930	912	903	904	896	937	968
1,500-2,499	3,655	3,708	3,699	3,723	3,701	4,177	4,123	4,276	4,477	4,427	4,213	4,287	4,209	4,501	4,654	4,775
>=2,500	70,951	70,719	69,265	68,794	67,869	67,816	67,700	67,911	68,719	69,101	71,286	69,535	68,638	69,727	69,796	69,439
Unknown	53	29	45	41	113	204	372	306	289	329	342	331	262	298	293	282
Gestational age (weeks)																
<37	6,838	7,062	7,035	7,352	7,243	7,416	7,403	7,661	8,157	8,473	8,711	8,897	8,941	9,436	9,633	9,867
<32	1,083	1,163	1,132	1,263	1,092	1,150	1,274	1,217	1,232	1,336	1,299	1,314	1,320	1,373	1,411	1,451
32-36	5,755	5,899	5,903	6,089	6,151	6,266	6,129	6,444	6,925	7,137	7,412	7,583	7,621	8,063	8,222	8,416
>=37	68,454	68,125	66,640	66,027	65,178	65,554	65,660	65,675	66,212	66,312	68,039	66,155	65,067	65,980	66,038	65,588
Unknown	84	33	32	27	24	31	11	8	5	2	3	4	5	6	9	9
Age of mother (years)																
<20	9,781	9,614	9,130	9,222	9,396	9,717	9,525	9,416	9,253	8,945	8,793	8,141	7,773	7,573	7,610	7,653
<18	3,109	3,081	3,058	3,038	3,271	3,450	3,267	3,273	2,927	2,772	2,657	2,374	2,312	2,270	2,105	2,165
18-19	6,672	6,533	6,072	6,184	6,125	6,267	6,258	6,143	6,326	6,173	6,136	5,767	5,461	5,303	5,505	5,488
>=20	65,527	65,590	64,553	64,172	62,995	63,280	63,546	63,922	65,111	65,816	67,948	66,911	66,234	67,838	68,032	67,806
20-24	21,811	22,027	21,742	21,427	20,742	20,306	19,941	19,889	20,473	20,707	21,700	21,155	21,039	21,379	21,246	21,090
25-29	24,622	23,644	22,815	22,134	20,923	21,295	21,403	21,858	22,218	22,315	22,486	21,877	21,456	22,160	22,441	22,812
30-34	14,180	14,664	14,604	14,829	15,296	15,249	15,378	15,147	15,207	15,313	15,778	16,193	15,954	16,456	16,241	15,893
>=35	4,914	5,255	5,392	5,782	6,034	6,430	6,824	7,028	7,213	7,481	7,984	7,686	7,785	7,843	8,104	8,011
Unknown	68	16	24	12	54	4	3	6	10	26	12	4	6	11	38	5
Age / Education (years)																
<20 / <appropriate< td=""><td>3,190</td><td>3,078</td><td>2,827</td><td>2,625</td><td>2,556</td><td>2,590</td><td>2,703</td><td>2,757</td><td>2,785</td><td>2,676</td><td>2,681</td><td>2,581</td><td>2,551</td><td>2,324</td><td>2,405</td><td>2,381</td></appropriate<>	3,190	3,078	2,827	2,625	2,556	2,590	2,703	2,757	2,785	2,676	2,681	2,581	2,551	2,324	2,405	2,381
<20 / appropriate	6,525	6,481	6,264	6,537	6,738	7,036	6,696	6,578	6,398	6,181	6,020	5,504	5,160	5,176	5,126	5,192
>=20 / <12	8,994	9,041	8,730	8,439	7,800	7,916	8,021	8,324	8,880	9,182	10,087	10,283	10,385	10,994	11,059	11,548
>=20 / 12	30,006	29,453	28,123	27,148	25,439	24,398	23,596	23,374	23,048	22,952	22,920	21,961	21,297	20,661	20,758	20,113
>=20 / >12	26,271	26,901	27,515	28,275	28,887	30,233	31,269	31,682	32,714	33,159	34,476	34,349	34,266	35,824	35,811	35,606
Unknown	390	265	248	382	1,023	828	789	629	549	637	569	378	354	443	521	624

Table A-3. Live births by selected characteristics of infant and mother among whites: Indiana, 1990-2005--Con.

Characteristics	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Education (years)																
<12	15,153	15,126	14,469	14,091	13,504	13,821	13,814	14,146	14,362	14,520	15,253	15,084	15,080	15,528	15,562	16,112
0-8	2,466	2,652	2,641	2,602	2,604	2,769	2,787	2,946	3,156	3,272	3,808	3,913	4,070	4,326	4,294	4,603
9-11	12,685	12,474	11,828	11,489	10,900	11,052	11,027	11,200	11,206	11,248	11,445	11,171	11,010	11,202	11,268	11,509
=12	33,289	32,583	31,123	30,282	28,656	27,648	26,754	26,416	26,210	25,999	25,958	24,764	23,883	23,174	23,371	22,651
>12	26,612	27,262	27,888	28,663	29,316	30,707	31,720	32,157	33,262	33,655	34,985	34,833	34,700	36,287	36,263	36,080
13-15	14,523	14,820	15,126	15,276	15,317	16,009	16,467	16,332	16,831	16,785	17,161	17,009	16,635	17,327	17,155	16,890
>=16	12,089	12,442	12,762	13,387	13,999	14,698	15,253	15,825	16,431	16,870	17,824	17,824	18,065	18,960	19,108	19,190
Unknown	322	249	227	370	969	825	786	625	540	613	557	375	350	433	484	621
Live-birth order																
First	30,973	30,909	29,923	29,899	29,784	30,350	29,761	29,462	29,314	28,980	30,008	28,961	28,157	28,967	29,204	29,011
Second	25,345	25,033	24,777	24,401	24,079	24,174	24,164	24,126	24,759	25,160	25,191	24,810	24,603	24,457	24,439	24,240
Third	12,202	12,209	12,082	12,053	11,658	11,596	12,110	12,249	12,718	13,029	13,592	13,137	13,197	13,605	13,532	13,443
Fourth+	6,318	6,545	6,365	6,299	6,284	6,511	6,586	7,050	7,344	7,487	7,882	8,050	7,994	8,354	8,470	8,730
Unknown	538	524	560	754	640	370	453	457	239	131	80	98	62	39	35	40
Marital status																
Married	59,971	58,288	56,227	54,854	53,607	53,420	53,163	53,065	53,196	52,625	53,892	51,880	50,360	50,799	49,667	48,449
Unmarried	15,328	16,904	17,400	18,542	18,817	19,571	19,854	20,265	21,142	22,159	22,839	23,169	23,630	24,620	26,013	26,988
Unknown	77	28	80	10	21	10	57	14	36	3	22	7	23	3	0	27
Prenatal care began																
First trimester	59,924	59,661	58,984	59,198	58,824	59,354	58,920	58,895	59,936	60,813	62,627	60,752	60,755	61,954	61,130	60,950
After first trimester	13,377	13,741	13,194	12,621	11,976	12,030	12,251	12,592	12,960	12,679	13,042	13,184	12,140	12,259	13,058	12,930
Second trimester	11,286	11,703	11,290	10,818	10,251	10,287	10,405	10,642	10,913	10,702	10,952	11,144	10,318	10,208	10,637	10,825
Third trimester	2,091	2,038	1,904	1,803	1,725	1,743	1,846	1,950	2,047	1,977	2,090	2,040	1,822	2,051	2,421	2,105
No care	631	771	475	487	502	501	469	495	460	445	448	440	357	315	435	400
Unknown	1,444	1,047	1,054	1,100	1,143	1,116	1,434	1,362	1,018	850	636	680	761	894	1,057	1,184
Prenatal care index <sup>1</sup>																
Adequate plus	16,564	16,172	16,178	16,803	17,103	18,252	18,865	20,372	22,462	22,530	23,132	22,755	23,062	23,544	22,867	23,852
Adequate	35,000	35,437	35,089	35,108	35,019	34,753	33,763	33,013	32,454	33,060	33,689	32,473	32,506	32,529	32,091	30,872
Intermediate	12,681	12,893	12,454	11,635	10,671	10,224	9,610	9,118	8,880	8,893	9,620	9,345	8,861	9,586	9,874	9,931
Inadequate	8,134	8,143	7,596	7,371	6,887	6,979	7,293	7,531	7,787	7,551	8,062	8,083	7,476	7,716	8,395	8,194
No care	631	771	475	487	502	501	469	495	460	445	448	440	357	315	435	400
Unknown	2,366	1,804	1,915	2,002	2,263	2,292	3,074	2,815	2,331	2,308	1,802	1,960	1,751	1,732	2,018	2,215
Maternal smoking																
Smoking	20,539	19,746	18,725	18,009	17,134	16,784	15,967	16,372	16,449	16,269	16,167	15,789	14,698	14,431	14,228	14,123
Not smoking	54,561	55,196	54,723	55,120	54,993	55,922	56,775	56,736	57,746	58,309	60,351	59,066	59,173	60,849	61,308	61,199
Unknown	276	278	259	277	318	295	332	236	179	209	235	201	142	142	144	142

<sup>&</sup>lt;sup>1</sup>Based on APNCU index (Kotelchuck, M., Am J Public Health 1994;84:1414-1420).

Table A-4. Live births by selected characteristics of infant and mother among blacks: Indiana, 1990-2005

Characteristics	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Total	9,421	9,483	9,382	9,314	8,938	8,752	8,746	8,739	9,216	9,244	9,421	9,531	9,243	9,288	9,582	9,820
Plurality																
Single births	9,168	9,268	9,090	9,066	8,685	8,500	8,496	8,477	8,902	8,939	9,098	9,162	8,880	8,964	9,247	9,428
Multiple births	253	215	291	248	253	251	250	262	314	305	323	369	362	324	335	392
Unknown	0	0	1	0	0	1	0	0	0	0	0	0	1	0	0	0
Method of delivery																
Cesarean	1,912	1,921	2,057	2,032	1,951	1,816	1,851	1,774	1,850	1,906	2,081	2,332	2,384	2,456	2,764	2,953
Not cesarean	7,057	7,547	7,313	7,277	6,974	6,927	6,890	6,956	7,359	7,323	7,327	7,190	6,850	6,824	6,814	6,864
Unknown	452	15	12	5	13	9	5	9	7	15	13	9	9	8	4	3
Birth weight (grams)																
<2,500	1,169	1,171	1,163	1,203	1,103	1,126	1,207	1,183	1,238	1,182	1,186	1,226	1,195	1,226	1,301	1,311
<1,500	257	253	284	241	255	227	268	241	264	275	268	274	242	297	281	318
1,500-2,499	912	918	879	962	848	899	939	942	974	907	918	952	953	929	1,020	993
>=2,500	8,237	8,299	8,207	8,104	7,789	7,577	7,454	7,507	7,925	8,019	8,180	8,256	8,003	8,031	8,247	8,479
Unknown	15	13	12	7	46	49	85	49	53	43	55	49	45	31	34	30
Gestational age (weeks)																
<37	1,795	1,758	1,757	1,733	1,619	1,572	1,630	1,625	1,677	1,688	1,740	1,738	1,702	1,766	1,812	1,858
<32	412	419	446	417	409	385	401	383	382	406	368	408	360	394	398	410
32-36	1,383	1,339	1,311	1,316	1,210	1,187	1,229	1,242	1,295	1,282	1,372	1,330	1,342	1,372	1,414	1,448
>=37	7,594	7,723	7,624	7,579	7,319	7,178	7,115	7,114	7,539	7,551	7,680	7,793	7,541	7,518	7,770	7,960
Unknown	32	2	1	2	0	2	1	0	0	5	1	0	0	4	0	2
Age of mother (years)																
<20	2,601	2,662	2,645	2,563	2,472	2,371	2,381	2,228	2,355	2,221	2,068	1,968	1,842	1,837	1,887	1,859
<18	1,174	1,203	1,193	1,189	1,163	1,086	1,067	993	949	872	780	758	713	645	732	667
18-19	1,427	1,459	1,452	1,374	1,309	1,285	1,314	1,235	1,406	1,349	1,288	1,210	1,129	1,192	1,155	1,192
>=20	6,807	6,816	6,728	6,748	6,461	6,379	6,362	6,507	6,861	7,020	7,353	7,563	7,401	7,451	7,686	7,961
20-24	3,182	3,257	3,263	3,197	3,097	2,955	2,964	2,996	3,221	3,303	3,430	3,550	3,430	3,379	3,422	3,540
25-29	2,100	2,008	1,898	1,895	1,806	1,707	1,767	1,843	2,002	2,034	2,164	2,215	2,133	2,154	2,306	2,373
30-34	1,113	1,105	1,080	1,161	1,078	1,129	1,057	1,092	1,035	1,075	1,139	1,137	1,190	1,251	1,294	1,354
>=35	412	446	487	495	480	588	574	576	603	608	620	661	648	667	664	694
Unknown	13	5	9	3	5	2	3	4	0	3	0	0	0	0	9	0
Age / Education (years)																
<20 / <appropriate< td=""><td>446</td><td>439</td><td>493</td><td>442</td><td>428</td><td>403</td><td>429</td><td>401</td><td>492</td><td>445</td><td>422</td><td>401</td><td>371</td><td>408</td><td>360</td><td>384</td></appropriate<>	446	439	493	442	428	403	429	401	492	445	422	401	371	408	360	384
<20 / appropriate	2,093	2,159	2,119	2,082	1,995	1,912	1,890	1,783	1,841	1,739	1,614	1,551	1,456	1,402	1,511	1,447
>=20 / <12	1,155	1,138	1,156	1,180	1,065	997	1,088	1,083	1,213	1,246	1,324	1,405	1,469	1,443	1,540	1,570
>=20 / 12	3,286	3,212	3,148	3,074	2,864	2,681	2,702	2,710	2,873	2,935	3,108	3,127	2,969	2,925	3,066	3,125
>=20 / >12	2,252	2,358	2,350	2,377	2,377	2,563	2,435	2,594	2,686	2,733	2,840	2,983	2,926	3,015	3,005	3,167
Unknown	189	177	116	159	209	196	202	168	111	146	113	64	52	95	100	127

Table A-4. Live births by selected characteristics of infant and mother among blacks: Indiana, 1990-2005--Con.

Characteristics	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Education (years)																
<12	2,810	2,852	2918	2,866	2,699	2,552	2,613	2,526	2,730	2,626	2,582	2,653	2,612	2,570	2,698	2,664
0-8	207	219	226	191	222	206	192	160	183	173	158	137	166	156	169	151
9-11	2,603	2,633	2692	2.675	2,477	2,346	2,421	2,366	2,547	2,453	2,424	2,516	2,446	2,414	2,529	2,513
=12	4,071	3,995	3902	3,794	3,568	3,347	3,390	3,362	3,582	3,647	3,773	3,739	3,518	3,524	3,689	3,754
>12	2,364	2,464	2451	2,496	2,467	2,659	2,543	2,687	2,793	2,828	2,953	3,075	3,061	3,099	3,104	3,275
13-15	1,871	1,975	1951	1,908	1,894	2,033	1,915	1,965	2,098	2,103	2,149	2,255	2,203	2,232	2,195	2,330
>=16	493	489	500	588	573	626	628	722	695	725	804	820	858	867	909	945
Unknown	176	172	111	158	204	194	200	164	111	143	113	64	52	95	91	127
Live-birth order																
First	3,527	3,555	3525	3,451	3,461	3,587	3,361	3,325	3,430	3,306	3,259	3,440	3,248	3,299	3,487	3,541
Second	2,752	2,805	2773	2,777	2,509	2,390	2,524	2,450	2,634	2,673	2,684	2,701	2,545	2,612	2,629	2,621
Third	1,683	1,692	1606	1,681	1,541	1,461	1,503	1,532	1,658	1,728	1,846	1,758	1,789	1,732	1,764	1,826
Fourth+	1,390	1,374	1430	1,346	1,386	1,286	1,279	1,345	1,460	1,509	1,613	1,615	1,657	1,636	1,699	1,825
Unknown	69	57	48	59	41	28	79	87	34	28	19	17	4	9	3	7
Marital status																
Married	2,445	2,267	2165	2,183	1,935	2,020	1,980	2,095	2,094	2,122	2,271	2,306	2,166	2,201	2,116	2,188
Unmarried	6,972	7,212	7215	7,130	7,000	6,730	6,762	6,644	7,120	7,122	7,148	7,225	7,073	7,085	7,465	7,630
Unknown	4	4	2	1	3	2	4	0	2	0	2	0	4	2	1	2
Prenatal care began																
First trimester	5,468	5,320	5746	5,801	5,609	5,699	5,385	5,593	5,890	6,056	6,323	6,392	6,341	6,337	6,432	6,363
After first trimester	3,115	3,364	3,085	2,986	2811	2576	2689	2646	2891	2756	2714	2750	2540	2572	2698	2944
Second trimester	2,584	2,729	2604	2,522	2,342	2,192	2,243	2,216	2,379	2,287	2,233	2,258	2,126	2,071	2,233	2,452
Third trimester	531	635	481	464	469	384	446	430	512	469	481	492	414	501	465	492
No care	348	407	275	266	254	222	250	230	245	183	186	192	210	191	220	193
Unknown	490	392	276	261	264	255	422	270	190	249	198	197	152	188	232	320
Prenatal care index <sup>1</sup>																
Adequate plus	1,934	1,827	1986	1,990	2,056	2,212	2,237	2,401	2,690	2,694	2,736	2,731	2,797	2,802	2,879	2,977
Adequate	2,616	2,567	2730	2,809	2,627	2,684	2,432	2,557	2,679	2,772	2,942	2,948	2,880	2,908	2,982	2,913
Intermediate	1,434	1,536	1641	1,689	1,387	1,305	1,115	1,142	1,167	1,097	1,206	1,266	1,212	1,258	1,312	1,250
Inadequate	2,252	2,403	2102	1,990	1,880	1,732	1,783	1,807	1,937	1,870	1,849	1,844	1,748	1,758	1,778	1,982
No care	348	407	275	266	254	222	250	230	245	183	186	192	210	191	220	193
Unknown	837	743	648	570	734	597	929	602	498	628	502	550	396	371	411	505
Maternal smoking																
Smoking	2,158	1,892	1,828	1,735	1,545	1,440	1,443	1,254	1,506	1,460	1,435	1,483	1,402	1,411	1,380	1,370
Not smoking	7,176	7,518	7,516	7,525	7,350	7,272	7,282	7,462	7,680	7,759	7,940	8,017	7,810	7,866	8,172	8,422
Unknown	87	73	38	54	43	40	21	23	30	25	46	31	31	11	30	28

<sup>&</sup>lt;sup>1</sup>Based on APNCU index (Kotelchuck, M., Am J Public Health 1994;84:1414-1420).

Table A-5. Live births by selected characteristics of infant and mother among non-Hispanic whites: Indiana, 1990-2005

Characteristics	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Total	73,623	73,409	71,759	71,056	69,886	70,488	69,321	69,252	69,760	69,973	71,182	68,926	67,655	68,465	68,253	67,296
Plurality																
Single births	71,869	71,592	70,080	69,265	68,173	68,615	67,497	67,356	67,692	67,655	68,962	66,679	65,236	66,083	65,791	64,915
Multiple births	1,736	1,815	1,676	1,791	1,711	1,873	1,824	1,896	2,068	2,318	2,220	2,247	2,419	2,382	2,462	2,380
Unknown	1,730	1,013	3	0	2	1,073	1,024	0 0	2,000	2,310	2,220	2,247	2,419	2,302	2,402	2,300
Method of delivery	10	2	3	U	2	U	U	U	O	U	U	U	U	U	U	•
Cesarean	15,727	15,824	15,368	15,020	14,661	14,501	14,086	13,638	14,035	14,487	15,580	16,218	16,930	17,705	18,666	18,960
Not cesarean	56,376	57,306	56,250	55,890	55,056	55,798	55,058	55,412	55,599	55,333	55,442	52,614	50,653	50,723	49,556	48,284
Unknown	1,520	279	141	146	169	189	177	202	126	153	160	94	72	37	31	52
Birth weight (grams)	1,020	2.0		110	100	100		202	120	100	100	0.		O,	01	02
<2,500	4,261	4,364	4,274	4.404	4,316	4,818	4.741	4,848	5,041	5.039	4,844	4,794	4,716	4,991	5,122	5,202
<1,500	697	742	676	804	735	780	814	788	832	865	862	820	829	834	847	870
1,500-2,499	3.564	3,622	3,598	3.600	3,581	4,038	3,927	4.060	4,209	4.174	3,982	3,974	3,887	4,157	4,275	4,332
>=2,500	69,309	69,017	67,441	66,611	65,462	65,481	64,228	64,117	64,453	64,623	66,028	63,820	62,702	63,200	62,870	61,849
Unknown	53	28	44	41	108	189	352	287	266	311	310	312	237	274	261	245
Gestational age (weeks)																
<37	6,635	6,861	6,795	7,056	6,944	7,124	6,987	7,189	7,607	7,913	8,116	8,124	8,147	8,572	8,709	8,779
<32	1,049	1,130	1,089	1,211	1,041	1,106	1,174	1,130	1,150	1,234	1,199	1,179	1,196	1,263	1,258	1,287
32-36	5,586	5,731	5,706	5,845	5,903	6,018	5,813	6,059	6,457	6,679	6,917	6,945	6,951	7,309	7,451	7,492
>=37	66,905	66,515	64,934	63,974	62,918	63,336	62,324	62,055	62,150	62,058	63,063	60,798	59,504	59,887	59,535	58,509
Unknown	83	33	30	26	24	28	10	8	3	2	3	4	4	6	9	8
Age of mother (years)																
<20	9,467	9,290	8,764	8,805	8,912	9,228	8,866	8,719	8,482	8,180	7,913	7,248	6,891	6,627	6,579	6,559
<18	3,004	2,947	2,918	2,884	3,090	3,270	3,019	2,989	2,641	2,496	2,377	2,062	2,015	1,931	1,765	1,777
18-19	6,463	6,343	5,846	5,921	5,822	5,958	5,847	5,730	5,841	5,684	5,536	5,186	4,876	4,696	4,814	4,782
>=20	64,093	64,104	62,971	62,239	60,923	61,256	60,452	60,529	61,269	61767	63,258	61,674	60,758	61,828	61,643	60,733
20-24	21,286	21,435	21,110	20,681	19,884	19,416	18,747	18,539	18,975	19,038	19,651	19,003	18,875	19,054	18,881	18,600
25-29	24,128	23,189	22,336	21,522	20,319	20,687	20,416	20,757	20,968	21,033	21,025	20,128	19,599	20,176	20,261	20,341
30-34	13,881	14,359	14,280	14,419	14,861	14,894	14,754	14,510	14,480	14,552	15,010	15,294	14,970	15,282	15,008	14,438
>=35	4,798	5,121	5,245	5,617	5,859	6,259	6,535	6,723	6,846	7,144	7,572	7,249	7,314	7,316	7,493	7,354
Unknown	63	15	24	12	51	4	3	4	9	26	11	4	6	10	31	4
Age / Education (years)																
<20 / <appropriate< td=""><td>3,084</td><td>2,992</td><td>2,698</td><td>2,497</td><td>2,379</td><td>2,414</td><td>2,473</td><td>2,477</td><td>2,477</td><td>2,358</td><td>2,249</td><td>2,140</td><td>2,073</td><td>1,865</td><td>1,937</td><td>1,898</td></appropriate<>	3,084	2,992	2,698	2,497	2,379	2,414	2,473	2,477	2,477	2,358	2,249	2,140	2,073	1,865	1,937	1,898
<20 / appropriate	6,318	6,247	6,029	6,257	6,434	6,729	6,281	6,170	5,942	5,751	5,594	5,067	4,770	4,704	4,589	4,595
>=20 / <12	8,625	8,617	8,246	7,905	7,198	7,179	7,067	7,155	7,555	7,545	7,852	7,689	7,531	7,851	7,732	7,838
>=20 / 12	29,403	28,836	27,540	26,382	24,667	23,743	22,500	22,247	21,760	21,746	21,644	20,536	19,813	19,130	19,048	18,252
>=20 / >12	25,824	26,471	27,011	27,664	28,211	29,627	30,269	30,643	31,557	32,072	33,426	33,227	33,178	34,558	34,552	34,223
Unknown	369	246	235	351	997	796	731	560	469	501	417	267	290	357	395	490

Table A-5. Live births by selected characteristics of infant and mother among non-Hispanic whites: Indiana, 1990-2005--Con.

Characteristics	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
							Live b	irths								
Education (years)																
<12	14,570	14,488	13,741	13,277	12,561	12,741	12,402	12,468	12,500	12,347	12,366	11,825	11,548	11,668	11,510	11,614
0-8	2,280	2,449	2,404	2,320	2,271	2,358	2,240	2,274	2,377	2,313	2,480	2,348	2,390	2,453	2,354	2,475
9-11	12,290	12,039	11,337	10,957	10,290	10,383	10,162	10,194	10,123	10,034	9,886	9,477	9,158	9,215	9,156	9,139
=12	32,592	31,867	30,438	29,410	27,763	26,879	25,497	25,140	24,739	24,609	24,501	23,155	22,230	21,455	21,412	20,535
>12	26,155	26,824	27,366	28,030	28,618	30,075	30,694	31,088	32,061	32,540	33,909	33,682	33,591	34,994	34,966	34,660
13-15	14,212	14,513	14,752	14,846	14,845	15,569	15,816	15,629	16,050	16,066	16,466	16,249	15,932	16,498	16,315	16,009
>=16	11,943	12,311	12,614	13,184	13,773	14,506	14,878	15,459	16,011	16,474	17,443	17,433	17,659	18,496	18,651	18,651
Unknown	306	230	214	339	944	793	728	556	460	477	406	264	286	348	365	487
Live-birth order																
First	30,280	30,216	29,166	28,980	28,755	29,302	28,247	27,875	27,565	27,121	27,886	26,654	25,896	26,515	26,690	26,303
Second	24,837	24,499	24,194	23,692	23,300	23,439	22,980	22,870	23,325	23,696	23,517	22,994	22,671	22,370	22,173	21,725
Third	11,881	11,895	11,756	11,636	11,234	11,184	11,484	11,541	11,921	12,194	12,561	12,020	11,949	12,206	12,001	11,821
Fourth+	6,098	6,281	6,094	6,020	5,979	6,212	6,167	6,520	6,732	6,859	7,157	7,199	7,086	7,340	7,356	7,412
Unknown	527	518	549	728	618	351	443	446	217	103	61	59	53	34	33	35
Marital status																
Married	58,817	57,147	55,040	53,330	52,049	51,949	50,807	50,489	50,350	49,856	50,948	48,663	47,130	47,329	46,143	44,721
Unmarried	14,733	16,235	16,674	17,717	17,817	18,529	18,466	18,750	19,382	20,114	20,212	20,256	20,502	21,133	22,110	22,552
Unknown	73	27	45	9	20	10	48	13	28	3	22	7	23	3	0	23
Prenatal care began																
First trimester	58,731	58,410	57,700	57,553	57,054	57,720	56,300	56,110	56,826	57,664	59,243	57,269	56,669	57,413	56,546	55,823
After first trimester	12,892	13,241	12,576	11,994	11,308	11,253	11,267	11,437	11,620	11,196	11,092	10,836	10,058	10,053	10,483	10,167
Second trimester	10,901	11,303	10,780	10,298	9,708	9,658	9,632	9,734	9,842	9,546	9,422	9,244	8,648	8,435	8,589	8,617
Third trimester	1,991	1,938	1,796	1,696	1,600	1,595	1,635	1,703	1,778	1,650	1,670	1,592	1,410	1,618	1,894	1,550
No care	600	734	454	453	462	457	433	439	396	377	353	348	283	257	350	319
Unknown	1,400	1,024	1,029	1,056	1,062	1,058	1,321	1,266	918	736	494	473	645	742	874	987
Prenatal care index <sup>1</sup>																
Adequate plus	16,210	15,813	15,732	16,289	16,575	17,705	17,989	19,499	21,320	21,457	22,038	21,496	21,631	21,843	21,326	21,964
Adequate	34,307	34,694	34,363	34,158	34,039	33,838	32,356	31,475	30,811	31,334	31,808	30,536	30,271	30,100	29,544	28,163
Intermediate	12,409	12,608	12,161	11,312	10,293	9,864	9,120	8,547	8,260	8,241	8,744	8,440	7,892	8,588	8,728	8,639
Inadequate	7,802	7,797	7,187	6,938	6,432	6,484	6,595	6,708	6,886	6,509	6,711	6,510	6,100	6,229	6,631	6,371
No care	600	734	454	453	462	457	433	439	396	377	353	348	283	257	350	319
Unknown	2,295	1,763	1,862	1,906	2,085	2,140	2,828	2,584	2,087	2,055	1,528	1,596	1,478	1,448	1,674	1,840
Maternal smoking																
Smoking	20,276	19,496	18,495	17,751	16,853	16,566	15,594	15,990	16,011	15,911	15,821	15,415	14,369	14,089	13,881	13,771
Not smoking	53,082	53,640	53,040	53,036	52,725	53,638	53,447	53,030	53,579	53,862	55,129	53,316	53,149	54,235	54,230	53,383
Unknown	265	273	224	269	308	284	280	232	170	200	232	195	137	141	142	142

<sup>&</sup>lt;sup>1</sup>Based on APNCU index (Kotelchuck, M., Am J Public Health 1994;84:1414-1420).

Table A-6. Live births by selected characteristics of infant and mother among non-Hispanic blacks: Indiana, 1990-2005

Characteristics	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Total	9,347	9,435	9,358	9,289	8,908	8,695	8,686	8,708	9,172	9,200	9,368	9,495	9,205	9,246	9,534	9,746
Plurality																
Single births	9,094	9,222	9,066	9,041	8,656	8,447	8,438	8,446	8,858	8,895	9,045	9,126	8,842	8,922	9,199	9,356
Multiple births	253	213	291	248	252	247	248	262	314	305	323	369	362	324	335	390
Unknown	0	0	1	0	0	1	0	0	0	0	0	0	1	0	0	0
Method of delivery																
Cesarean	1,896	1,911	2,052	2,030	1,944	1,799	1,844	1,766	1,842	1,893	2,067	2,326	2,377	2,448	2,748	2,929
Not cesarean	7,001	7,509	7,294	7,254	6,951	6,887	6,837	6,933	7,323	7,292	7,288	7,160	6,819	6,791	6,782	6,814
Unknown	450	15	12	5	13	9	5	9	7	15	13	9	9	7	4	3
Birth weight (grams)																
<2,500	1,160	1,164	1,161	1,201	1,097	1,116	1,200	1,180	1,232	1,179	1,181	1,224	1,193	1,224	1,297	1,306
<1,500	255	253	283	241	255	224	267	241	264	273	267	274	241	297	280	317
1,500-2,499	905	911	878	960	842	892	933	939	968	906	914	950	952	927	1,017	989
>=2,500	8,174	8,258	8,185	8,081	7,765	7,530	7,401	7,479	7,888	7,978	8,132	8,223	7,967	7,991	8,204	8,410
Unknown	13	13	12	7	46	49	85	49	52	43	55	48	45	31	33	30
Gestational age (weeks)																
<37	1,786	1,747	1,752	1,728	1,616	1,564	1,626	1,622	1,672	1,677	1,729	1,731	1,698	1,758	1,807	1,844
<32	410	416	445	417	408	383	399	382	380	403	366	407	359	393	397	409
32-36	1,376	1,331	1,307	1,311	1,208	1,181	1,227	1,240	1,292	1,274	1,363	1,324	1,339	1,365	1,410	1,435
>=37	7,529	7,686	7,605	7,559	7,292	7,129	7,059	7,086	7,500	7,518	7,638	7,764	7,507	7,485	7,727	7,900
Unknown	32	2	1	2	0	2	1	0	0	5	1	0	0	3	0	2
Age of mother (years)																
<20	2,575	2,643	2,640	2,558	2,463	2,359	2,369	2,219	2,343	2,211	2,058	1,960	1,834	1,827	1,879	1,847
<18	1,159	1,194	1,193	1,186	1,156	1,080	1,064	987	943	869	777	756	711	642	730	661
18-19	1,416	1,449	1,447	1,372	1,307	1,279	1,305	1,232	1,400	1,342	1,281	1,204	1,123	1,185	1,149	1,186
>=20	6,759	6,787	6,709	6,728	6,440	6,334	6,314	6,485	6,829	6,986	7,310	7,535	7,371	7,419	7,646	7,899
20-24	3,160	3,238	3,257	3,187	3,085	2,934	2,938	2,986	3,209	3,287	3,416	3,535	3,414	3,362	3,406	3,509
25-29	2,089	2,002	1,890	1,890	1,802	1,695	1,757	1,838	1,995	2,027	2,148	2,206	2,122	2,145	2,291	2,360
30-34	1,102	1,103	1,077	1,158	1,075	1,123	1,049	1,088	1,028	1,065	1,129	1,135	1,189	1,248	1,285	1,346
>=35	408	444	485	493	478	582	570	573	597	607	617	659	646	664	664	684
Unknown	13	5	9	3	5	2	3	4	0	3	0	0	0	0	9	0
Age / Education (years)																
<20 / <appropriate< td=""><td>442</td><td>434</td><td>491</td><td>441</td><td>426</td><td>401</td><td>429</td><td>400</td><td>491</td><td>441</td><td>421</td><td>399</td><td>369</td><td>404</td><td>359</td><td>381</td></appropriate<>	442	434	491	441	426	401	429	400	491	441	421	399	369	404	359	381
<20 / appropriate	2,075	2,146	2,116	2,078	1,989	1,902	1,880	1,775	1,830	1,734	1,605	1,545	1,450	1,396	1,504	1,438
>=20 / <12	1,146	1,133	1,154	1,178	1,056	992	1,078	1,078	1,209	1,245	1,318	1,402	1,461	1,436	1,535	1,563
>=20 / 12	3,269	3,192	3,141	3,066	2,858	2,663	2,686	2,699	2,862	2,924	3,097	3,113	2,955	2,912	3,045	3,101
>=20 / >12	2,239	2,356	2,343	2,367	2,371	2,544	2,416	2,589	2,670	2,714	2,816	2,972	2,918	3,003	2,991	3,137
Unknown	176	174	113	159	208	193	197	167	110	142	111	64	52	95	100	126

Table A-6. Live births by selected characteristics of infant and mother among non-Hispanic blacks: Indiana, 1990-2005--Con.

Characteristics	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
<u> </u>				_		_	Live bi	rths						_		
Education (years)																
<12	2,787	2,833	2913	2,860	2,683	2,538	2,599	2,514	2,719	2,618	2,573	2,645	2,598	2,553	2,689	2,649
0-8	201	217	226	191	218	204	191	158	181	171	156	137	163	153	168	150
9-11	2,586	2,616	2,687	2,669	2,465	2,334	2,408	2,356	2,538	2,447	2,417	2,508	2,435	2,400	2,521	2,499
=12	4,047	3,973	3893	3,785	3,561	3,326	3,368	3,349	3,567	3,634	3,757	3,723	3,503	3,511	3,664	3,726
>12	2,350	2,460	2444	2,486	2,461	2,640	2,524	2,682	2,776	2,809	2,927	3,063	3,052	3,087	3,090	3,245
13-15	1,862	1,972	1944	1,903	1,890	2,019	1,902	1,962	2,087	2,094	2,131	2,246	2,197	2,223	2,185	2,309
>=16	488	488	500	583	571	621	622	720	689	715	796	817	855	864	905	936
Unknown	163	169	108	158	203	191	195	163	110	139	111	64	52	95	91	126
Live-birth order																
First	3,496	3,538	3519	3,440	3,452	3,561	3,341	3,311	3,410	3,288	3,238	3,423	3,234	3,283	3,469	3,512
Second	2,735	2,785	2769	2,772	2,502	2,378	2,506	2,442	2,623	2,657	2,666	2,692	2,528	2,602	2,618	2,604
Third	1,675	1,687	1602	1,678	1,536	1,452	1,491	1,527	1,648	1,720	1,841	1,755	1,787	1,721	1,751	1,813
Fourth+	1,381	1,371	1423	1,341	1,378	1,277	1,269	1,341	1,457	1,507	1,604	1,608	1,652	1,631	1,693	1,810
Unknown	60	54	45	58	40	27	79	87	34	28	19	17	4	9	3	7
Marital status																
Married	2,428	2,254	2156	2,176	1,927	2,002	1,963	2,087	2,074	2,103	2,250	2,296	2,154	2,187	2,096	2,163
Unmarried	6,915	7,177	7200	7,113	6,979	6,691	6,719	6,621	7,096	7,097	7,116	7,199	7,047	7,057	7,437	7,581
Unknown	4	4	2	0	2	2	4	0	2	0	2	0	4	2	1	2
Prenatal care began																
First trimester	5,435	5,289	5736	5,788	5,592	5,660	5,348	5,579	5,864	6,021	6,287	6,411	6,314	6,307	6,398	6,312
After first trimester	3,085	3,349	3,074	2,974	2,800	2,562	2,671	2,631	2,875	2,747	2,700	2,708	2,529	2,561	2,686	2,928
Second trimester	2,562	2,715	2595	2,513	2,334	2,182	2,227	2,206	2,367	2,281	2,220	2,229	2,115	2,061	2,226	2,442
Third trimester	523	634	479	461	466	380	444	425	508	466	480	479	414	500	460	486
No care	347	406	275	266	254	221	249	229	245	183	186	192	210	190	218	193
Unknown	480	391	273	261	262	252	418	269	188	249	195	184	152	188	232	313
Prenatal care index <sup>1</sup>																
Adequate plus	1,919	1,809	1983	1,987	2,053	2,200	2,228	2,397	2,681	2,681	2,719	2,733	2,783	2,788	2,865	2,951
Adequate	2,600	2,552	2725	2,799	2,618	2,665	2,409	2,546	2,660	2,755	2,927	2,952	2,863	2,892	2,966	2,900
Intermediate	1,426	1,532	1640	1,686	1,380	1,297	1,110	1,139	1,165	1,093	1,201	1,266	1,210	1,253	1,309	1,235
Inadequate	2,237	2,397	2092	1,983	1,872	1,720	1,771	1,798	1,928	1,862	1,839	1,816	1,743	1,755	1,769	1,969
No care	347	406	275	266	254	221	249	229	245	183	186	192	210	190	218	193
Unknown	818	739	643	568	731	592	919	599	493	626	496	536	396	368	407	498
Maternal smoking																
Smoking	2,146	1,884	1,825	1,729	1,539	1,430	1,436	1,252	1,499	1,456	1,433	1,477	1,396	1,406	1,373	1,361
Not smoking	7,124	7,481	7,496	7,506	7,328	7,226	7,229	7,433	7,643	7,720	7,889	7,987	7,778	7,830	8,132	8,357
Unknown	77	70	37	54	41	39	21	23	30	24	46	31	31	10	29	28

<sup>&</sup>lt;sup>1</sup>Based on APNCU index (Kotelchuck, M., Am J Public Health 1994;84:1414-1420).

Characteristics	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
							Live bi	rths								
Total	1,915	1,832	1,939	2,124	2,311	2,525	2,941	3,393	3,781	4,383	5,427	5,865	6,145	6,763	7,237	8,026
Plurality																
Single births	1,875	1,798	1,901	2,065	2,275	2,464	2,864	3,309	3,694	4,271	5,339	5,742	6,042	6,612	7,080	7,849
Multiple births	39	34	38	59	36	61	77	84	87	112	88	123	103	151	157	177
Unknown	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Method of delivery																
Cesarean	522	521	543	572	589	622	626	681	761	867	1,107	1,300	1,529	1,742	1,895	2,177
Not cesarean	1,356	1,303	1,393	1,551	1,720	1,896	2,310	2,709	3,010	3,507	4,312	4,556	4,612	5,011	5,337	5,841
Unknown	37	8	3	1	2	7	5	3	10	9	8	9	4	10	5	8
Birth weight (grams)																
<2,500	111	106	122	156	132	158	209	234	262	283	283	380	386	398	457	529
<1,500	18	20	22	39	25	22	50	45	46	62	52	81	75	60	91	99
1,500-2,499	93	86	100	117	107	136	159	189	216	221	231	299	311	338	366	430
>=2,500	1,803	1,725	1,816	1,968	2,173	2,350	2,715	3,139	3,499	4,084	5,114	5,465	5,736	6,342	6,752	7,460
Unknown	1	1	1	0	6	17	17	20	20	16	30	20	23	23	28	37
Gestational age (weeks)																
<37	221	202	241	280	269	291	335	394	451	516	588	745	760	843	898	1,072
<32	31	31	42	47	48	41	82	72	67	97	102	133	124	108	155	161
32-36	190	171	199	233	221	250	253	322	384	419	486	612	636	735	743	911
>=37	1,693	1,630	1,697	1,843	2,042	2,231	2,605	2,999	3,328	3,867	4,839	5,120	5,384	5,919	6,339	6,954
Unknown	1	0	1	1	0	3	1	0	2	0	0	0	1	1	0	0
Age of mother (years)																
<20	335	333	367	394	465	500	572	613	691	723	853	836	857	921	987	1,065
<18	118	141	138	148	182	181	223	248	269	259	275	294	294	330	328	384
18-19	217	192	229	246	283	319	349	365	422	464	578	542	563	591	659	681
>=20	1,575	1,498	1,572	1,729	1,843	2,025	2,369	2,779	3,089	3,660	4,573	5,029	5,288	5,841	6,243	6,961
20-24	567	593	622	696	774	900	1,016	1,171	1,270	1,538	1,990	2,068	2,099	2,256	2,289	2,427
25-29	538	462	470	527	533	602	715	906	999	1,146	1,425	1,685	1,796	1,920	2,143	2,424
30-34	330	306	327	356	379	352	429	471	544	674	754	851	948	1,146	1,213	1,444
>=35	140	137	153	150	157	171	209	231	276	302	404	425	445	519	598	666
Unknown	5	1	0	1	3	0	0	1	1	0	1	0	0	1	7	0
Age / Education (years)																
<20 / <appropriate< td=""><td>114</td><td>88</td><td>130</td><td>121</td><td>172</td><td>182</td><td>215</td><td>257</td><td>291</td><td>309</td><td>418</td><td>424</td><td>464</td><td>451</td><td>455</td><td>478</td></appropriate<>	114	88	130	121	172	182	215	257	291	309	418	424	464	451	455	478
<20 / appropriate	220	242	236	265	291	314	347	347	393	396	413	397	379	454	508	573
>=20 / <12	397	417	487	526	593	740	906	1,114	1,259	1,606	2,232	2,557	2,834	3,119	3,319	3,681
>=20 / 12	655	620	565	654	661	651	753	849	950	1,041	1,200	1,336	1,388	1,446	1,634	1,796
>=20 / >12	514	448	510	531	569	608	669	757	812	894	1,008	1,040	1,018	1,206	1,197	1,365
Unknown	15	17	11	27	25	30	51	69	76	137	156	111	62	87	124	133

Table A-7. Live births by selected characteristics of infant and mother among Hispanics: Indiana, 1990-2005--Con.

Characteristics	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
					,		Live bi	rths	,		,		,		,	
Education (years)																
<12	631	640	733	794	932	1,092	1,322	1,567	1,760	2,113	2,864	3,192	3,498	3,822	4,020	4,455
0-8	207	198	237	280	338	416	530	657	756	958	1,339	1,557	1,679	1,883	1,948	2,130
9-11	424	442	496	514	594	676	792	910	1,004	1,155	1,525	1,635	1,819	1,939	2,072	2,325
=12	749	719	666	751	770	768	877	976	1,094	1,212	1,373	1,496	1,546	1,624	1,866	2,037
>12	525	457	529	553	587	635	691	781	851	921	1,035	1,066	1,039	1,231	1,234	1,401
13-15	345	316	383	381	415	443	452	554	599	601	662	711	665	794	805	872
>=16	180	141	146	172	172	192	239	227	252	320	373	355	374	437	429	529
Unknown	10	16	9	26	22	30	51	69	76	137	155	111	62	86	117	133
Live-birth order																
First	759	707	749	835	927	1,060	1,188	1,329	1,418	1,707	2,074	2,205	2,174	2,382	2,425	2,648
Second	555	539	578	631	693	740	902	1,009	1,157	1,292	1,607	1,763	1,877	2,008	2,204	2,460
Third	348	312	327	369	392	406	495	588	664	765	1,005	1,071	1,202	1,362	1,497	1,602
Fourth+	248	270	276	269	283	301	350	457	520	590	723	817	885	1,005	1,108	1,311
Unknown	5	4	9	20	16	18	6	10	22	29	18	9	7	6	3	5
Marital status																
Married	1,275	1,161	1,211	1,327	1,351	1,469	1,717	2,018	2,179	2,404	2,851	3,057	3,089	3,363	3,418	3,651
Unmarried	637	670	726	795	958	1,056	1,219	1,374	1,596	1,979	2,576	2,808	3,056	3,400	3,819	4,372
Unknown	3	1	2	2	2	0	5	1	6	0	0	0	0	0	0	3
Prenatal care began																
First trimester	1,307	1,266	1,275	1,439	1,562	1,636	1,895	2,194	2,386	2,755	3,269	3,628	3,926	4,370	4,426	5,014
After first trimester	531	507	617	609	634	788	906	1,053	1,243	1,450	1,925	2,033	2,037	2,186	2,547	2,729
Second trimester	424	406	508	501	515	635	714	824	992	1,130	1,510	1,671	1,633	1,753	2,020	2,190
Third trimester	107	101	109	108	119	153	192	229	251	320	415	362	404	433	527	539
No care	33	37	22	34	39	45	36	50	60	67	89	87	72	57	85	80
Unknown	44	22	25	42	76	56	103	96	92	111	144	117	110	150	179	203
Prenatal care index <sup>1</sup>																
Adequate plus	375	366	445	458	471	537	567	655	833	916	1,065	1,223	1,361	1,594	1,467	1,835
Adequate	744	746	712	810	834	911	1,024	1,171	1,251	1,497	1,783	2,005	2,147	2,346	2,457	2,632
Intermediate	313	291	296	307	363	375	437	536	555	635	868	921	951	1,002	1,132	1,291
Inadequate	363	352	411	422	435	504	660	758	849	1,021	1,348	1,356	1,352	1,480	1,758	1,807
No care	33	37	22	34	39	45	36	50	60	67	89	87	72	57	85	80
Unknown	87	40	53	93	169	153	217	223	233	247	274	273	262	284	338	381
Maternal smoking																
Smoking	261	239	219	213	222	205	222	215	248	231	278	262	260	259	262	265
Not smoking	1,647	1,590	1,713	1,906	2,082	2,310	2,717	3,176	3,525	4,146	5,146	5,597	5,880	6,502	6,972	7,761
Unknown	7	3	7	5	7	10	2	2	8	6	1	6	5	2	3	0

<sup>&</sup>lt;sup>1</sup>Based on APNCU index (Kotelchuck, M., Am J Public Health 1994;84:1414-1420).

Table B-1. Number of low birth weight infants by selected characteristics of infant and mother among all races: Indiana, 1990-2005

Characteristics	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Total	5,625	5,710	5,622	5,845	5,628	6,195	6,304	6,399	6,717	6,655	6,417	6,529	6,434	6,760	7,019	7,220
Plurality																
Single births	4,571	4,597	4,585	4,683	4,534	4,990	5,098	5,111	5,334	5,093	4,927	4,976	4,804	5,066	5,211	5,443
Multiple births	1,051	1,113	1,037	1,162	1,094	1,205	1,206	1,288	1,383	1,562	1,490	1,553	1,630	1,694	1,808	1,777
Method of delivery																
Cesarean	1,938	2,041	1,951	2,026	2,013	2,175	2,189	2,234	2,325	2,479	2,518	2,810	2,865	3,139	3,371	3,523
Not cesarean	3,512	3,640	3,661	3,799	3,597	4,008	4,097	4,138	4,374	4,150	3,857	3,711	3,559	3,611	3,643	3,684
Birth weight (grams)																
<2,500																
<1,500																
1,500-2,499																
>=2,500																
Gestational age (weeks)																
<37	3,406	3,516	3,484	3,706	3,580	3,774	3,909	3,986	4,230	4,283	4,259	4,310	4,281	4,533	4,700	4,918
<32	1,125	1,203	1,202	1,310	1,185	1,166	1,306	1,253	1,272	1,374	1,302	1,353	1,319	1,410	1,446	1,509
32-36	2,281	2,313	2,282	2,396	2,395	2,608	2,603	2,733	2,958	2,909	2,957	2,957	2,962	3,123	3,254	3,409
>=37	2,196	2,192	2,135	2,133	2,044	2,417	2,393	2,412	2,486	2,370	2,158	2,219	2,152	2,223	2,317	2,298
Age of mother (years)																
<20	1,084	1,070	1,039	1,048	1,084	1,175	1,212	1,101	1,218	1,151	1,001	891	913	854	933	1,016
<18	393	406	414	422	453	464	459	431	465	406	337	307	317	270	278	303
18-19	691	664	625	626	631	711	753	670	753	745	664	584	596	584	655	713
>=20	4,537	4,639	4,578	4,796	4,540	5,019	5,091	5,298	5,498	5,500	5,415	5,638	5,521	5,903	6,074	6,203
20-24	1,664	1,696	1,702	1,750	1,602	1,783	1,720	1,771	1,867	1,893	1,859	1,952	1,911	2,050	1,978	2,108
25-29	1,556	1,526	1,417	1,507	1,351	1,489	1,486	1,692	1,712	1,684	1,680	1,679	1,661	1,697	1,866	1,940
30-34	930	994	971	1,078	1,086	1,095	1,208	1,188	1,206	1,187	1,109	1,191	1,221	1,351	1,385	1,326
>=35	387	423	488	461	501	652	677	647	713	736	767	816	728	805	845	829
Age / Education (years)																
<20 / <appropriate< td=""><td>335</td><td>316</td><td>323</td><td>275</td><td>250</td><td>320</td><td>354</td><td>303</td><td>371</td><td>346</td><td>270</td><td>286</td><td>292</td><td>252</td><td>287</td><td>298</td></appropriate<>	335	316	323	275	250	320	354	303	371	346	270	286	292	252	287	298
<20 / appropriate	733	735	707	755	807	834	829	781	838	790	721	591	617	592	634	700
>=20 / <12	881	841	886	897	793	873	882	947	1,049	1,016	1,006	1,060	1,019	1,123	1,145	1,161
>=20 / 12	2,163	2,206	2,120	2,089	1,964	2,051	2,036	2,093	2,118	2,111	1,952	2,076	1,973	1,993	2,038	2,118
>=20 / >12	1,428	1,559	1,549	1,750	1,710	2,004	2,075	2,173	2,251	2,289	2,380	2,465	2,479	2,738	2,829	2,842

Table B-1. Number of low birth weight infants by selected characteristics of infant and mother among all races: Indiana, 1990-2005--Con.

Characteristics	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Education (years)																
<12	1,602	1,558	1,607	1,614	1,487	1,652	1,670	1,687	1,861	1,762	1,621	1,649	1,631	1,671	1,734	1,775
0-8	206	206	242	199	213	234	231	214	297	269	237	279	263	263	308	309
9-11	1,396	1,352	1,365	1,415	1,274	1,418	1,439	1,473	1,564	1,493	1,384	1,370	1,368	1,408	1,426	1,466
=12	2,481	2,511	2,398	2,366	2,292	2,388	2,385	2,402	2,466	2,450	2,284	2,323	2,215	2,255	2,335	2,445
>12	1,461	1,589	1,581	1,787	1,749	2,043	2,121	2,208	2,301	2,344	2,425	2,506	2,534	2,775	2,876	2,899
13-15	865	954	1,002	1,061	1,007	1,220	1,164	1,270	1,313	1,301	1,307	1,367	1,359	1,448	1,496	1,530
>=16	596	635	579	726	742	823	957	938	988	1,043	1,118	1,139	1,175	1,327	1,380	1,369
Unknown	81	52	36	78	100	112	128	102	89	99	87	51	54	59	74	101
Live-birth order																
First	2,447	2,488	2,429	2,468	2,385	2,711	2,729	2,745	2,846	2,781	2,610	2,614	2,611	2,725	2,865	2,945
Second	1,632	1,594	1,609	1,715	1,619	1,726	1,778	1,754	1,915	1,873	1,845	1,848	1,817	1,896	1,989	1,997
Third	876	950	872	953	918	942	1,003	1,059	1,070	1,110	1,115	1,132	1,100	1,182	1,117	1,234
Fourth+	609	639	648	621	643	781	734	786	843	864	832	922	898	955	1,043	1,031
	61	39	64	88	63	35	60	55	43	27	15	13	8	2	5	13
Marital status																
Married	3,405	3,365	3,200	3,251	3,117	3,434	3,513	3,648	3,639	3,607	3,583	3,588	3,478	3,686	3,706	3,652
Unmarried	2,214	2,343	2,421	2,592	2,505	2,761	2,784	2,749	3,072	3,048	2,831	2,941	2,950	3,072	3,313	3,564
Prenatal care began																
First trimester	3,923	3,966	4,099	4,258	4,112	4,610	4,679	4,748	4,929	5,077	4,917	4,960	4,931	5,208	5,234	5,424
After first trimester	1,206	1,259	1,151	1,214	1,140	1,215	1,177	1,261	1,390	1,214	1,223	1,255	1,145	1,176	1,310	1,315
Second trimester	1,038	1,105	1,014	1,056	996	1,051	1,034	1,083	1,198	1,039	1,074	1,100	991	1,005	1,116	1,132
Third trimester	168	154	137	158	144	164	143	178	192	175	149	155	154	171	194	183
No care	177	188	170	158	172	168	195	157	172	152	117	145	138	139	162	126
Unknown	319	297	202	215	204	202	253	233	226	212	160	169	220	237	313	313
Prenatal care index <sup>1</sup>																
Adequate plus	2,286	2,391	2,545	2,727	2,631	3,028	2,993	3,233	3,572	3,603	3,498	3,510	3,546	3,757	3,775	4,072
Adequate	1,359	1,335	1,357	1,347	1,299	1,403	1,391	1,383	1,296	1,255	1,269	1,302	1,229	1,307	1,397	1,250
Intermediate	518	564	494	505	460	485	498	442	456	438	427	446	450	449	446	454
Inadequate	767	777	670	712	649	712	720	741	799	721	759	750	676	725	781	811
No care	177	188	170	158	172	168	195	157	172	152	117	145	138	139	162	126
Unknown	518	455	386	396	417	399	507	443	422	486	347	376	395	383	458	507
Maternal smoking																
Smoking	2,356	2,185	2,183	2,168	1,942	2,167	2,105	2,064	2,236	2,137	1,968	1,862	1,826	1,868	1,812	1,863
Not smoking	3,215	3,488	3,400	3,616	3,631	3,977	4,162	4,290	4,445	4,483	4,397	4,635	4,581	4,868	5,176	5,333
Unknown	54	37	39	61	55	51	37	45	36	35	52	32	27	24	31	24

<sup>&</sup>lt;sup>1</sup>Based on APNCU index (Kotelchuck, M., Am J Public Health 1994;84:1414-1420).

Table B-2. Number of low birth weight infants by selected characteristics of infant and mother among whites: Indiana, 1990-2009

Characteristics	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Total	4,372	4,472	4,397	4,571	4,463	4,981	5,002	5,127	5,366	5,357	5,125	5,190	5,113	5,397	5,591	5,743
Plurality																
Single births	3,492	3,507	3,550	3,572	3,537	3,927	3,962	4,036	4,204	3,991	3,857	3,895	3,758	3,953	4,022	4,271
Multiple births	880	965	847	999	926	1,054	1,040	1,091	1,162	1,366	1,268	1,295	1,355	1,444	1,569	1,472
Method of delivery																
Cesarean	1,579	1,702	1,590	1,685	1,695	1,831	1,786	1,859	1,929	2,099	2,088	2,270	2,348	2,580	2,749	2,838
Not cesarean	2,672	2,745	2,799	2,867	2,753	3,139	3,200	3,244	3,421	3,238	2,998	2,912	2,757	2,808	2,839	2,893
Birth weight (grams)																
<2,500																
<1,500																
1,500-2,499																
>=2,500	•••															
Gestational age (weeks)																
<37	2,616	2,748	2,693	2,912	2,829	3,026	3,092	3,184	3,340	3,427	3,399	3,434	3,415	3,652	3,749	3,925
<32	820	889	853	991	866	883	984	936	939	1,037	1,006	1,014	1,013	1,068	1,096	1,136
32-36	1,796	1,859	1,840	1,921	1,963	2,143	2,108	2,248	2,401	2,390	2,393	2,420	2,402	2,584	2,653	2,789
>=37	1,746	1,722	1,702	1,654	1,630	1,953	1,908	1,942	2,025	1,929	1,726	1,756	1,697	1,744	1,840	1,815
Age of mother (years)																
<20	746	747	705	727	765	880	861	798	887	806	720	627	655	600	652	750
<18	248	265	247	255	280	327	306	294	318	271	228	202	213	181	173	206
18-19	498	482	458	472	485	553	555	504	569	535	492	425	442	419	479	544
>=20	3,626	3,724	3,689	3,843	3,694	4,100	4,141	4,329	4,478	4,549	4,404	4,563	4,458	4,794	4,931	4,992
20-24	1,278	1,302	1,333	1,342	1,235	1,420	1,334	1,378	1,463	1,494	1,414	1,483	1,485	1,572	1,533	1,629
25-29	1,281	1,263	1,168	1,232	1,119	1,244	1,244	1,395	1,420	1,419	1,408	1,360	1,329	1,401	1,509	1,583
30-34	755	829	794	871	921	889	1,010	1,011	1,031	1,028	930	1,036	1,027	1,160	1,178	1,101
>=35	312	330	394	398	419	547	553	545	564	608	652	684	617	661	711	679
Age / Education (years)																
<20 / <appropriate< td=""><td>270</td><td>254</td><td>250</td><td>220</td><td>210</td><td>273</td><td>287</td><td>244</td><td>304</td><td>281</td><td>208</td><td>221</td><td>243</td><td>192</td><td>223</td><td>246</td></appropriate<>	270	254	250	220	210	273	287	244	304	281	208	221	243	192	223	246
<20 / appropriate	466	487	450	496	541	595	557	545	577	516	504	395	408	402	420	491
>=20 / <12	693	680	711	706	623	709	699	773	827	836	794	848	784	899	896	918
>=20 / 12	1,738	1,773	1,703	1,668	1,597	1,642	1,633	1,698	1,718	1,733	1,557	1,610	1,564	1,581	1,617	1,677
>=20 / >12	1,167	1,256	1,262	1,438	1,425	1,689	1,744	1,801	1,874	1,928	2,001	2,078	2,065	2,277	2,370	2,337

Table B-2. Number of low birth weight infants by selected characteristics of infant and mother among whites: Indiana, 1990-2005--Con.

Characteristics	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Education (years)																
<12	1,193	1,193	1,191	1,197	1,105	1,293	1,262	1,304	1,422	1,369	1,225	1,257	1,235	1,283	1,304	1,381
0-8	173	180	202	172	179	208	206	192	262	233	208	258	243	247	275	278
9-11	1,020	1,013	989	1,025	926	1,085	1,056	1,112	1,160	1,136	1,017	999	992	1,036	1,029	1,103
=12	1,958	1,988	1,902	1,870	1,837	1,895	1,886	1,926	1,969	1,964	1,806	1,785	1,733	1,766	1,830	1,908
>12	1,183	1,270	1,284	1,462	1,458	1,721	1,772	1,831	1,910	1,963	2,034	2,110	2,096	2,305	2,400	2,380
13-15	655	704	775	826	790	989	900	1,001	1,033	1,009	1,053	1,082	1,062	1,137	1,187	1,209
>=16	528	566	509	636	668	732	872	830	877	954	981	1,028	1,034	1,168	1,213	1,171
Unknown	38	21	20	42	63	72	82	66	65	61	60	38	49	43	57	74
Live-birth order																
First	1,968	1,989	1,987	2,001	1,931	2,242	2,216	2,259	2,326	2,267	2,160	2,133	2,124	2,228	2,296	2,393
Second	1,328	1,271	1,249	1,364	1,324	1,427	1,457	1,434	1,599	1,527	1,483	1,498	1,477	1,527	1,622	1,621
Third	641	730	679	721	726	734	794	840	815	902	873	898	878	933	908	969
Fourth+	398	453	428	414	429	550	493	557	592	641	598	656	627	709	760	752
	37	29	54	71	53	28	42	37	34	20	11	5	7	0	5	8
Marital status																
Married	3,092	3,066	2,929	2,982	2,900	3,179	3,228	3,330	3,323	3,292	3,260	3,263	3,139	3,338	3,350	3,279
Unmarried	1,275	1,404	1,467	1,587	1,558	1,802	1,768	1,795	2,038	2,065	1,863	1,927	1,970	2,057	2,241	2,460
Prenatal care began																
First trimester	3,234	3,302	3,386	3,521	3,416	3,866	3,914	3,965	4,099	4,257	4,071	4,086	4,023	4,317	4,285	4,485
After first trimester	851	881	792	834	806	875	828	911	996	876	876	901	839	839	961	940
Second trimester	730	779	703	737	704	764	727	778	863	758	772	790	726	717	817	804
Third trimester	121	102	89	97	102	111	101	133	133	118	104	111	113	122	144	136
No care	86	96	82	76	83	97	90	84	95	90	60	83	78	73	99	71
Unknown	201	193	137	140	158	143	170	167	176	134	118	120	173	168	246	247
Prenatal care index <sup>1</sup>																
Adequate plus	1,915	2,008	2,112	2,279	2,201	2,558	2,531	2,706	2,962	3,059	2,924	2,894	2,898	3,158	3,109	3,364
Adequate	1,119	1,125	1,130	1,117	1,086	1,187	1,167	1,138	1,076	1,039	1,031	1,073	1,006	1,043	1,144	1,029
Intermediate	389	442	368	364	356	362	377	352	362	346	327	343	350	336	334	354
Inadequate	519	516	442	469	434	496	492	520	552	489	527	529	489	521	548	556
No care	86	96	82	76	83	97	90	84	95	90	60	83	78	73	99	71
Unknown	344	285	263	266	303	281	345	327	319	334	256	268	292	266	357	369
Maternal smoking																
Smoking	1,917	1,831	1,819	1,810	1,632	1,843	1,787	1,792	1,896	1,859	1,695	1,563	1,566	1,581	1,559	1,588
Not smoking	2,421	2,617	2,549	2,717	2,789	3,098	3,185	3,296	3,444	3,466	3,389	3,601	3,525	3,793	4,009	4,137

<sup>&</sup>lt;sup>1</sup>Based on APNCU index (Kotelchuck, M., Am J Public Health 1994;84:1414-1420).

Table B-3. Number of low birth weight infants by selected characteristics of infant and mother among blacks: Indiana, 1990-2009

Characteristics	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Total	1,169	1,171	1,163	1,203	1,103	1,126	1,207	1,183	1,238	1,182	1,186	1,226	1,195	1,226	1,301	1,311
Plurality																
Single births	1,015	1,035	979	1,053	946	988	1,053	999	1,034	1,010	982	991	955	998	1,083	1,056
Multiple births	154	136	184	150	157	138	154	184	204	172	204	235	240	228	218	255
Method of delivery																
Cesarean	333	319	340	324	296	307	371	349	357	344	403	491	459	500	571	598
Not cesarean	787	848	821	878	804	818	835	831	879	832	780	735	734	725	728	712
Birth weight (grams)																
<2,500																
<1,500																
1,500-2,499																
>=2,500																
Gestational age (weeks)																
<37	738	724	759	755	715	691	766	757	825	788	796	810	789	819	869	889
<32	291	306	336	305	307	267	305	297	308	314	287	320	287	329	325	347
32-36	447	418	423	450	408	424	461	460	517	474	509	490	502	490	544	542
>=37	420	447	403	447	388	434	441	426	413	393	390	416	406	404	432	421
Age of mother (years)																
<20	327	317	328	315	315	284	335	293	319	333	268	254	251	247	276	253
<18	140	139	166	164	170	131	148	132	142	127	101	102	103	88	103	96
18-19	187	178	162	151	145	153	187	161	177	206	167	152	148	159	173	157
>=20	838	854	833	888	788	842	872	890	919	847	918	972	944	979	1,022	1,058
20-24	369	375	358	392	355	346	369	373	384	376	424	443	406	455	425	461
25-29	257	245	231	255	209	222	220	270	260	236	247	283	280	257	325	306
30-34	146	147	161	183	151	178	174	157	146	122	150	126	161	152	167	184
>=35	66	87	83	58	73	96	109	90	129	113	97	120	97	115	105	107
Age / Education (years)																
<20 / <appropriate< td=""><td>61</td><td>60</td><td>70</td><td>54</td><td>39</td><td>44</td><td>64</td><td>56</td><td>65</td><td>61</td><td>60</td><td>62</td><td>46</td><td>57</td><td>64</td><td>48</td></appropriate<>	61	60	70	54	39	44	64	56	65	61	60	62	46	57	64	48
<20 / appropriate	260	246	254	255	263	232	259	229	251	267	206	189	205	186	209	200
>=20 / <12	175	151	168	185	162	158	179	170	211	164	198	202	228	210	244	228
>=20 / 12	402	406	405	402	353	389	382	372	375	352	381	436	380	386	396	413
>=20 / >12	230	282	252	275	253	272	288	322	319	308	320	325	333	374	370	399

Table B-3. Number of low birth weight infants by selected characteristics of infant and mother among blacks: Indiana, 1990-2005--Con.

Characteristics	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Education (years)																
<12	386	353	405	407	370	346	394	371	422	368	374	379	385	369	423	373
0-8	26	25	38	26	30	25	22	20	32	29	23	17	19	13	31	26
9-11	360	328	367	381	340	321	372	351	390	339	351	362	366	356	392	347
=12	499	494	482	476	441	470	474	451	466	459	459	501	451	461	476	503
>12	247	298	262	288	259	279	304	327	333	327	332	334	356	383	387	412
13-15	203	239	215	218	203	212	247	251	260	271	243	258	267	288	279	301
>=16	44	59	47	70	56	67	57	76	73	56	89	76	89	95	108	111
Live-birth order																
First	446	473	412	432	422	429	466	442	465	460	399	422	425	434	497	470
Second	284	299	343	329	276	273	294	295	286	314	322	323	296	326	338	327
Third	220	209	183	224	186	197	196	207	240	192	233	221	209	227	193	243
Fourth+	198	181	216	203	209	223	236	221	239	212	228	253	265	237	273	267
	21	9	9	15	10	4	15	18	8	4	4	7	0	2	0	4
Marital status																
Married	250	250	222	213	176	198	222	257	229	226	240	246	240	242	257	237
Unmarried	918	921	941	990	926	928	985	926	1,008	956	945	980	953	984	1,044	1,074
Prenatal care began																
First trimester	636	619	668	677	648	679	693	715	745	731	763	794	813	791	855	804
After first trimester	340	362	349	373	324	328	335	333	371	323	328	327	283	308	327	350
Second trimester	295	313	302	313	284	277	295	289	315	266	285	287	243	265	280	305
Third trimester	45	49	47	60	40	51	40	44	56	57	43	40	40	43	47	45
No care	89	91	87	80	87	71	103	73	77	59	54	59	59	65	60	55
Unknown	104	99	59	73	44	48	76	62	45	69	41	46	40	62	59	102
Prenatal care index <sup>1</sup>																
Adequate plus	344	354	406	414	409	432	423	489	552	488	520	556	583	542	608	610
Adequate	218	192	210	210	194	196	202	215	191	192	214	207	192	227	221	185
Intermediate	121	119	118	133	98	116	110	87	85	84	94	97	92	98	100	90
Inadequate	239	253	225	241	207	213	220	211	236	223	219	204	176	187	220	242
No care	89	91	87	80	87	71	103	73	77	59	54	59	59	65	60	55
Unknown	158	162	117	125	108	98	149	108	97	136	85	103	93	107	92	129
Maternal smoking																
Smoking	418	342	353	348	296	310	304	253	316	264	265	290	246	268	246	264
Not smoking	734	816	800	838	794	809	900	925	912	915	910	931	944	957	1,047	1,041

<sup>&</sup>lt;sup>1</sup>Based on APNCU index (Kotelchuck, M., Am J Public Health 1994;84:1414-1420).

Table B-4. Number of low birth weight infants by selected characteristics of infant and mother among non-Hispanic whites: Indiana, 1990-2005

Characteristics	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Total	4,261	4,364	4,274	4,404	4,316	4,818	4,741	4,848	5,041	5,039	4,844	4,794	4,716	4,991	5,122	5,202
Plurality																
Single births	3,406	3,412	3,448	3,437	3,416	3,788	3,754	3,808	3,946	3,743	3,612	3,571	3,413	3,642	3,640	3,816
Multiple births	855	952	826	967	900	1,030	987	1,040	1,095	1,296	1,232	1,223	1,303	1,349	1,482	1,386
Method of delivery																
Cesarean	1,534	1,660	1,544	1,622	1,634	1,775	1,695	1,758	1,812	1,975	2,008	2,127	2,195	2,381	2,549	2,617
Not cesarean	2,607	2,679	2,722	2,764	2,667	3,032	3,031	3,067	3,216	3,044	2,800	2,661	2,513	2,603	2,571	2,573
Birth weight (grams)																
<2,500																
<1,500																
1,500-2,499																
>=2,500																
Gestational age (weeks)																
<37	2,545	2,686	2,614	2,793	2,729	2,928	2,917	3,023	3,126	3,230	3,236	3,187	3,169	3,393	3,442	3,559
<32	794	867	828	946	831	857	907	874	881	960	944	915	923	994	987	1,020
32-36	1,751	1,819	1,786	1,847	1,898	2,071	2,010	2,149	2,245	2,270	2,292	2,272	2,246	2,399	2,455	2,539
>=37	1,706	1,676	1,658	1,606	1,583	1,888	1,822	1,824	1,914	1,808	1,608	1,607	1,546	1,597	1,678	1,641
Age of mother (years)																
<20	728	723	679	691	730	829	820	729	821	750	664	569	582	548	595	655
<18	244	253	234	242	262	305	290	264	294	249	204	180	185	160	151	174
18-19	484	470	445	449	468	524	530	465	527	501	460	389	397	388	444	481
>=20	3,533	3,640	3,592	3,712	3,584	3,988	3,921	4,119	4,219	4,287	4,179	4,225	4,134	4,440	4,520	4,547
20-24	1,240	1,271	1,300	1,291	1,181	1,369	1,252	1,300	1,370	1,383	1,319	1,353	1,358	1,450	1,390	1,494
25-29	1,253	1,242	1,141	1,196	1,096	1,216	1,170	1,319	1,334	1,351	1,341	1,252	1,224	1,287	1,372	1,421
30-34	733	807	772	835	898	873	970	979	981	968	899	973	968	1,088	1,087	1,004
>=35	307	320	379	390	409	530	529	521	534	585	620	647	584	615	671	628
Age / Education (years)																
<20 / <appropriate< td=""><td>264</td><td>250</td><td>242</td><td>209</td><td>203</td><td>257</td><td>273</td><td>226</td><td>279</td><td>258</td><td>186</td><td>180</td><td>199</td><td>179</td><td>203</td><td>202</td></appropriate<>	264	250	242	209	203	257	273	226	279	258	186	180	199	179	203	202
<20 / appropriate	455	467	432	471	513	562	531	494	536	484	473	381	379	365	387	442
>=20 / <12	668	648	674	674	591	674	621	706	729	721	686	664	626	725	713	696
>=20 / 12	1,695	1,746	1,675	1,616	1,551	1,603	1,555	1,622	1,631	1,658	1,496	1,522	1,469	1,496	1,493	1,563
>=20 / >12	1,145	1,231	1,232	1,393	1,393	1,656	1,684	1,743	1,806	1,862	1,950	2,017	1,995	2,189	2,279	2,237

Source: Indiana State Department of Health, Maternal and Children's Special Health Care Services Report: Trends in Birth Outcomes and Maternal Characteristics in Indiana: Statistics from live birth data 1990-2005.

Table B-4. Number of low birth weight infants by selected characteristics of infant and mother among non-Hispanic whites: Indiana, 1990-2005

Characteristics	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Education (years)																
<12	1,158	1,144	1,137	1,142	1,046	1,222	1,153	1,195	1,275	1,213	1,077	1,024	1,015	1,071	1,084	1,087
0-8	162	167	183	156	166	192	174	156	201	174	152	148	141	152	168	155
9-11	996	977	954	986	880	1,030	979	1,039	1,074	1,039	925	876	874	919	916	932
=12	1,908	1,954	1,866	1,807	1,782	1,845	1,799	1,828	1,868	1,876	1,735	1,692	1,628	1,669	1,691	1,775
>12	1,161	1,245	1,253	1,415	1,425	1,686	1,712	1,768	1,839	1,896	1,980	2,048	2,025	2,217	2,307	2,278
13-15	641	684	753	794	769	963	860	965	980	966	1,020	1,042	1,012	1,080	1,133	1,139
>=16	520	561	500	621	656	723	852	803	859	930	960	1,006	1,013	1,137	1,174	1,139
Live-birth order																
First	1,918	1,947	1,934	1,921	1,868	2,164	2,110	2,131	2,191	2,126	2,036	1,968	1,962	2,075	2,130	2,181
Second	1,294	1,245	1,218	1,321	1,292	1,381	1,376	1,366	1,512	1,442	1,420	1,404	1,371	1,418	1,485	1,491
Third	631	707	661	694	696	716	758	793	763	853	824	828	798	851	823	882
Fourth+	383	436	407	399	409	530	455	523	546	600	556	590	578	647	679	641
Marital status																
Married	3,020	3,001	2,868	2,895	2,836	3,107	3,086	3,183	3,157	3,120	3,131	3,071	2,957	3,134	3,147	3,049
Unmarried	1,237	1,361	1,405	1,507	1,475	1,711	1,651	1,663	1,881	1,919	1,711	1,723	1,755	1,855	1,975	2,152
Prenatal care began																
First trimester	3,164	3,231	3,305	3,407	3,321	3,760	3,727	3,767	3,888	4,041	3,910	3,872	3,764	4,025	4,018	4,145
After first trimester	821	854	758	791	775	828	777	847	913	798	782	755	728	755	809	777
Second trimester	703	757	674	696	679	720	685	727	792	700	691	662	636	649	690	675
Third trimester	118	97	84	95	96	108	92	120	121	98	91	93	92	106	119	102
No care	81	91	77	71	73	94	82	77	87	80	51	65	63	62	80	62
Unknown	195	188	134	135	147	136	155	157	153	120	101	102	161	149	215	218
Prenatal care index <sup>1</sup>																
Adequate plus	1,869	1,966	2,052	2,195	2,154	2,485	2,416	2,583	2,801	2,907	2,819	2,754	2,737	2,966	2,929	3,122
Adequate	1,093	1,103	1,111	1,084	1,043	1,144	1,111	1,083	1,031	990	977	997	918	962	1,047	928
Intermediate	382	427	359	347	348	353	358	321	339	315	305	302	308	304	293	310
Inadequate	501	498	422	446	413	475	452	482	499	439	466	445	423	457	463	456
No care	81	91	77	71	73	94	82	77	87	80	51	65	63	62	80	62
Unknown	335	279	253	261	285	267	322	302	284	308	226	231	267	240	310	324
Maternal smoking																
Smoking	1,897	1,803	1,788	1,777	1,598	1,824	1,740	1,747	1,844	1,832	1,669	1,533	1,538	1,549	1,518	1,556
Not smoking	2,333	2,537	2,457	2,583	2,677	2,955	2,974	3,063	3,174	3,176	3,134	3,236	3,159	3,419	3,581	3,628

<sup>&</sup>lt;sup>1</sup>Based on APNCU index (Kotelchuck, M., Am J Public Health 1994;84:1414-1420).

Source: Indiana State Department of Health, Maternal and Children's Special Health Care Services Report: Trends in Birth Outcomes and Maternal Characteristics in Indiana: Statistics from live birth data 1990-2005.

Table B-5. Number of low birth weight infants by selected characteristics of infant and mother among non-Hispanic blacks: Indiana, 1990-2005

Characteristics	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Total	1,160	1,164	1,161	1,201	1,097	1,116	1,200	1,180	1,232	1,179	1,181	1,224	1,193	1,224	1,297	1,306
Plurality																
Single births	1,006	1,030	977	1,051	941	980	1,047	996	1,028	1,007	977	989	953	996	1,079	1,052
Multiple births	154	134	184	150	156	136	153	184	204	172	204	235	240	228	218	254
Method of delivery																
Cesarean	331	317	340	323	295	303	370	347	355	342	400	491	459	500	568	595
Not cesarean	780	843	819	877	799	812	829	830	875	831	778	733	732	723	727	710
Birth weight (grams)																
<2,500																
<1,500																
1,500-2,499																
>=2,500																
Gestational age (weeks)																
<37	734	719	758	753	713	687	763	756	823	785	794	808	788	817	867	884
<32	289	304	335	305	306	265	303	296	307	312	286	320	286	328	324	347
32-36	445	415	423	448	407	422	460	460	516	473	508	488	502	489	543	537
>=37	415	445	402	447	384	428	437	424	409	393	387	416	405	404	430	421
Age of mother (years)																
<20	326	314	328	315	311	283	335	292	317	333	267	254	251	247	276	252
<18	139	138	166	164	168	131	148	132	141	127	101	102	103	88	103	95
18-19	187	176	162	151	143	152	187	160	176	206	166	152	148	159	173	157
>=20	830	850	831	886	786	833	865	888	915	844	914	970	942	977	1,018	1,054
20-24	363	373	358	391	354	344	365	371	383	374	423	443	405	453	424	458
25-29	256	244	229	254	208	219	220	270	258	235	246	282	280	257	323	305
30-34	145	147	161	183	151	176	172	157	146	122	149	125	161	152	166	184
>=35	66	86	83	58	73	94	108	90	128	113	96	120	96	115	105	107
Age / Education (years)																
<20 / <appropriate< td=""><td>60</td><td>59</td><td>70</td><td>54</td><td>38</td><td>44</td><td>64</td><td>56</td><td>65</td><td>61</td><td>60</td><td>62</td><td>46</td><td>57</td><td>64</td><td>47</td></appropriate<>	60	59	70	54	38	44	64	56	65	61	60	62	46	57	64	47
<20 / appropriate	260	244	254	255	260	231	259	228	249	267	205	189	205	186	209	200
>=20 / <12	172	151	167	185	160	158	177	168	211	164	198	202	226	210	244	228
>=20 / 12	399	403	405	402	353	385	380	372	374	352	380	435	380	384	395	412
>=20 / >12	230	281	252	273	253	269	285	322	316	306	319	324	333	374	367	396

Table B-5. Number of low birth weight infants by selected characteristics of infant and mother among non-Hispanic blacks: Indiana, 1990-2005--Con.

Characteristics	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Education (years)																
<12	382	351	404	407	365	345	392	369	422	368	374	379	383	369	423	372
0-8	25	25	38	26	29	25	22	20	32	29	23	17	17	13	31	26
9-11	357	326	366	381	336	320	370	349	390	339	351	362	366	356	392	346
=12	496	490	482	476	440	466	472	450	463	459	457	500	451	459	475	502
>12	247	297	262	286	259	276	301	327	330	325	331	333	356	383	384	409
13-15	203	239	215	216	203	210	245	251	258	271	243	258	267	288	276	298
>=16	44	58	47	70	56	66	56	76	72	54	88	75	89	95	108	111
Live-birth order																
First	443	472	412	430	420	426	464	441	462	458	396	421	423	433	495	467
Second	281	295	343	329	275	270	292	294	285	313	321	323	296	325	337	327
Third	220	208	183	224	184	194	195	206	238	192	233	220	209	227	193	242
Fourth+	197	180	215	203	208	223	234	221	239	212	227	253	265	237	272	266
Marital status																
Married	250	247	222	213	176	193	218	257	227	225	238	244	238	241	254	237
Unmarried	909	917	939	988	920	923	982	923	1,004	954	942	980	953	983	1,043	1,069
Prenatal care began																
First trimester	632	615	667	675	645	671	689	714	741	728	762	793	811	790	851	801
After first trimester	336	360	348	373	321	327	333	331	370	323	325	327	283	307	327	350
Second trimester	293	311	301	313	282	276	293	288	314	266	282	287	243	264	280	305
Third trimester	43	49	47	60	39	51	40	43	56	57	43	40	40	43	47	45
No care	89	91	87	80	87	71	102	73	77	59	54	59	59	65	60	55
Unknown	103	98	59	73	44	47	76	62	44	69	40	45	40	62	59	100
Prenatal care index <sup>1</sup>																
Adequate plus	343	351	406	413	408	430	422	488	549	486	518	555	582	540	605	608
Adequate	216	192	209	209	193	193	199	214	189	191	213	207	191	227	221	185
Intermediate	120	118	118	133	97	114	110	87	85	84	94	97	92	98	99	89
Inadequate	236	252	224	241	205	212	218	210	236	223	219	204	176	187	220	242
No care	89	91	87	80	87	71	102	73	77	59	54	59	59	65	60	55
Unknown	156	160	117	125	107	96	149	108	96	136	83	102	93	107	92	127
Maternal smoking																
Smoking	415	340	353	347	295	309	304	253	315	264	265	290	246	268	246	263
Not smoking	730	811	798	837	790	801	893	922	907	912	905	929	942	955	1,043	1,037

<sup>&</sup>lt;sup>1</sup>Based on APNCU index (Kotelchuck, M., Am J Public Health 1994;84:1414-1420).

Table B-6. Number of low birth weight infants by selected characteristics of infant and mother among Hispanics: Indiana, 1990-2005

Characteristics	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Total	111	106	122	156	132	158	209	234	262	283	283	380	386	398	457	529
Plurality																
Single births	86	95	101	125	108	135	162	196	208	221	249	311	336	310	372	444
Multiple births	25	11	21	31	24	23	47	38	54	62	34	69	50	88	85	85
Method of delivery																
Cesarean	44	39	45	60	54	56	71	86	96	104	85	138	151	193	194	221
Not cesarean	66	67	77	95	78	102	137	147	163	179	195	240	235	203	262	308
Birth weight (grams)																
<2,500																
<1,500																
1,500-2,499																
>=2,500																
Gestational age (weeks)																
<37	70	63	77	112	91	97	132	131	173	177	163	238	235	252	298	360
<32	23	20	25	42	32	23	60	47	44	74	63	97	90	73	110	114
32-36	47	43	52	70	59	74	72	84	129	103	100	141	145	179	188	246
>=37	41	43	45	44	41	61	77	103	89	106	120	142	151	146	159	169
Age of mother (years)																
<20	19	24	25	35	36	49	36	60	56	49	55	52	69	51	52	91
<18	5	11	12	12	18	21	17	25	25	18	24	20	26	20	22	32
18-19	14	13	13	23	18	28	19	35	31	31	31	32	43	31	30	59
>=20	92	82	97	121	94	109	173	174	206	234	228	328	317	347	404	438
20-24	38	30	32	49	44	53	74	71	73	101	94	122	125	124	139	129
25-29	26	22	28	33	22	25	49	65	71	65	68	107	104	108	136	162
30-34	22	21	21	31	19	16	30	22	40	52	33	61	58	70	90	96
>=35	6	9	16	8	9	15	20	16	22	16	33	38	30	45	39	51
Age / Education (years)																
<20 / <appropriate< td=""><td>7</td><td>4</td><td>7</td><td>10</td><td>7</td><td>16</td><td>10</td><td>17</td><td>24</td><td>22</td><td>21</td><td>37</td><td>43</td><td>12</td><td>20</td><td>42</td></appropriate<>	7	4	7	10	7	16	10	17	24	22	21	37	43	12	20	42
<20 / appropriate	12	20	18	25	29	31	26	43	32	26	31	12	26	37	29	47
>=20 / <12	22	29	38	32	32	33	72	64	87	109	110	180	157	167	182	221
>=20 / 12	46	28	28	44	37	39	52	55	64	65	59	84	91	84	122	106
>=20 / >12	24	25	29	44	24	35	46	47	51	54	51	59	68	89	87	101

Table B-6. Number of low birth weight infants by selected characteristics of infant and mother among Hispanics: Indiana, 1990-2005--Con.

Characteristics	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Education (years)																
<12	36	45	54	54	60	68	100	102	134	145	149	224	217	204	219	290
0-8	12	12	18	15	16	16	32	35	56	57	57	109	102	93	108	123
9-11	24	33	36	39	44	52	68	67	78	88	92	115	115	111	111	167
=12	51	36	36	55	47	49	60	73	72	76	69	88	99	96	133	124
>12	24	25	30	46	24	37	46	51	52	55	54	60	69	89	89	103
13-15	17	20	23	33	15	28	30	32	41	32	32	37	50	58	54	73
>=16	7	5	7	13	9	9	16	19	11	23	22	23	19	31	35	30
Live-birth order																
First	51	40	50	74	54	77	85	104	111	128	124	157	158	152	159	208
Second	31	29	30	40	29	46	62	56	66	76	65	89	104	106	133	124
Third	14	22	20	26	29	16	29	41	41	41	47	68	78	80	83	84
Fourth+	15	15	22	15	19	18	33	31	39	36	44	65	46	60	82	112
Marital status																
Married	73	68	61	80	51	70	107	114	123	145	129	185	178	199	198	223
Unmarried	38	38	61	76	81	88	101	120	137	138	154	195	208	199	259	304
Prenatal care began																
First trimester	72	72	78	107	85	102	144	154	161	188	159	205	251	282	261	333
After first trimester	33	24	36	39	28	47	48	63	73	72	98	140	109	85	147	156
Second trimester	30	19	31	37	23	44	40	50	64	54	85	124	88	70	122	125
Third trimester	3	5	5	2	5	3	8	13	9	18	13	16	21	15	25	31
No care	4	5	5	5	9	3	9	7	8	9	9	18	14	11	19	9
Unknown	2	5	3	5	10	6	8	10	20	14	17	17	12	20	30	31
Prenatal care index <sup>1</sup>																
Adequate plus	40	42	59	82	42	70	86	93	121	130	106	136	154	183	174	236
Adequate	27	23	19	27	37	42	49	47	36	45	55	73	86	82	93	97
Intermediate	11	16	10	16	8	9	14	26	18	29	22	40	41	33	42	45
Inadequate	21	14	20	21	19	21	38	37	48	46	63	78	66	62	83	97
No care	4	5	5	5	9	3	9	7	8	9	9	18	14	11	19	9
Unknown	8	6	9	5	17	13	13	24	31	24	28	35	25	27	46	45
Maternal smoking																
Smoking	20	25	29	26	27	16	28	25	28	16	24	18	23	25	35	20
Not smoking	91	81	93	130	104	141	180	208	231	267	259	361	360	373	422	509

<sup>&</sup>lt;sup>1</sup>Based on APNCU index (Kotelchuck, M., Am J Public Health 1994;84:1414-1420).

Table C-1. Number of preterm births by selected characteristics of mother and infant among all races: Indiana, 1990-2005

Characteristics	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Total	8,770	8,920	8,884	9,187	8,951	9,116	9,168	9,410	10,008	10,322	10,640	10,778	10,824	11,389	11,659	11,948
Plurality																
Single births	7,802	7,830	7,905	8,072	7,887	7,935	7,950	8,111	8,597	8,654	9,008	9,031	9,021	9,488	9,670	9,948
Multiple births	968	1,090	979	1,115	1,064	1,181	1,218	1,299	1,411	1,668	1,632	1,747	1,803	1,901	1,989	2,000
Method of delivery																
Cesarean	2,487	2,549	2,530	2,686	2,583	2,670	2,763	2,724	2,917	3,164	3,410	3,793	3,922	4,281	4,646	4,961
Not cesarean	6,032	6,334	6,331	6,469	6,342	6,424	6,379	6,647	7,067	7,116	7,185	6,968	6,888	7,094	7,006	6,975
Birth weight (grams)																
<2,500	3,406	3,516	3,484	3,706	3,580	3,774	3,909	3,986	4,230	4,283	4,259	4,310	4,281	4,533	4,700	4,918
<1,500	944	976	960	1,071	997	1,017	1,116	1,069	1,136	1,184	1,144	1,168	1,145	1,172	1,210	1,276
1,500-2,499	2,462	2,540	2,524	2,635	2,583	2,757	2,793	2,917	3,094	3,099	3,115	3,142	3,136	3,361	3,490	3,642
>=2,500	5,331	5,378	5,367	5,465	5,321	5,261	5,126	5,305	5,676	5,939	6,259	6,340	6,438	6,743	6,846	6,916
Gestational age (weeks)																
<37																
<32																
32-36																
>=37		•••							•••							
Age of mother (years)																
<20	1,719	1,681	1,646	1,632	1,639	1,601	1,658	1,556	1,644	1,584	1,554	1,439	1,388	1,341	1,446	1,516
<18	713	693	700	687	706	704	661	667	642	579	568	514	484	468	488	468
18-19	1,006	988	946	945	933	897	997	889	1,002	1,005	986	925	904	873	958	1,048
>=20	7,045	7,236	7,233	7,554	7,304	7,514	7,509	7,853	8,364	8,735	9,085	9,338	9,436	10,045	10,201	10,431
20-24	2,627	2,736	2,702	2,711	2,629	2,653	2,458	2,575	2,757	2,850	3,010	3,105	3,169	3,303	3,228	3,339
25-29	2,389	2,310	2,255	2,413	2,210	2,271	2,294	2,529	2,732	2,730	2,835	2,865	2,855	3,034	3,145	3,220
30-34	1,456	1,502	1,512	1,722	1,658	1,671	1,821	1,790	1,836	1,986	2,022	2,119	2,160	2,405	2,421	2,439
>=35	573	688	764	708	807	919	936	959	1,039	1,169	1,218	1,249	1,252	1,303	1,407	1,433
Age / Education (years)																
<20 / <appropriate< td=""><td>449</td><td>439</td><td>464</td><td>405</td><td>373</td><td>385</td><td>423</td><td>395</td><td>444</td><td>416</td><td>415</td><td>421</td><td>429</td><td>399</td><td>404</td><td>436</td></appropriate<>	449	439	464	405	373	385	423	395	444	416	415	421	429	399	404	436
<20 / appropriate	1,245	1,211	1,166	1,204	1,239	1,188	1,198	1,140	1,192	1,139	1,118	999	948	929	1,024	1,061
>=20 / <12	1,267	1,263	1,253	1,253	1,065	1,179	1,076	1,226	1,357	1,362	1,527	1,547	1,649	1,788	1,792	1,857
>=20 / 12	3,247	3,296	3,282	3,301	3,120	3,035	2,949	3,066	3,121	3,212	3,294	3,368	3,267	3,321	3,405	3,425
>=20 / >12	2,451	2,625	2,665	2,927	2,993	3,169	3,367	3,452	3,787	4,024	4,155	4,361	4,453	4,866	4,910	5,034

Table C-1. Number of preterm births by selected characteristics of mother and infant among all races: Indiana, 1990-2005--Con.

Characteristics	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Education (years)																
<12	2,417	2,382	2,386	2,375	2,130	2,238	2,125	2,267	2,414	2,352	2,490	2,468	2,544	2,663	2,694	2,759
0-8	316	334	384	313	346	341	328	356	391	371	442	473	473	530	562	582
9-11	2,101	2,048	2,002	2,062	1,784	1,897	1,797	1,911	2,023	1,981	2,048	1,995	2,071	2,133	2,132	2,177
=12	3,738	3,766	3,718	3,729	3,606	3,489	3,454	3,504	3,634	3,712	3,791	3,791	3,658	3,709	3,867	3,931
>12	2,510	2,689	2,727	2,987	3,062	3,230	3,434	3,509	3,853	4,092	4,229	4,437	4,544	4,934	4,986	5,123
13-15	1,491	1,607	1,671	1,731	1,768	1,917	1,903	1,976	2,089	2,209	2,241	2,400	2,381	2,571	2,577	2,645
>=16	1,019	1,082	1,056	1,256	1,294	1,313	1,531	1,533	1,764	1,883	1,988	2,037	2,163	2,363	2,409	2,478
Live-birth order																
First	3,649	3,627	3,582	3,672	3,632	3,643	3,685	3,766	3,900	3,811	4,018	3,987	3,867	4,112	4,239	4,327
Second	2,642	2,690	2,765	2,812	2,734	2,784	2,800	2,766	3,060	3,228	3,254	3,260	3,435	3,399	3,555	3,554
Third	1,437	1,532	1,418	1,573	1,556	1,476	1,546	1,636	1,745	1,890	1,934	1,985	1,980	2,227	2,117	2,253
Fourth+	968	1,004	1,034	1,031	955	1,151	1,069	1,163	1,241	1,352	1,411	1,527	1,533	1,642	1,743	1,799
Marital status																
Married	5,442	5,424	5,231	5,448	5,248	5,324	5,359	5,627	5,838	6,057	6,291	6,372	6,228	6,574	6,520	6,508
Unmarried	3,318	3,490	3,647	3,739	3,698	3,791	3,804	3,782	4,164	4,264	4,344	4,404	4,587	4,814	5,139	5,432
Prenatal care began																
First trimester	5,991	6,127	6,402	6,756	6,583	6,724	6,794	6,935	7,431	7,870	8,173	8,261	8,301	8,838	8,908	9,149
After first trimester	2,075	2,099	1,984	1,935	1,867	1,896	1,771	1,943	2,070	1,973	2,061	2,084	2,038	2,070	2,115	2,183
Second trimester	1,794	1,807	1,746	1,679	1,623	1,628	1,553	1,657	1,763	1,697	1,778	1,795	1,737	1,769	1,826	1,862
Third trimester	281	292	238	256	244	268	218	286	307	276	283	289	301	301	289	321
No care	288	295	218	216	223	214	242	214	202	191	172	199	181	170	211	178
Unknown	416	399	280	280	278	282	361	318	305	288	234	234	304	311	425	438
Prenatal care index1																
Adequate plus	4,628	4,766	4,995	5,374	5,282	5,477	5,458	5,807	6,406	6,683	6,896	6,984	7,067	7,472	7,489	7,821
Adequate	1,509	1,456	1,502	1,474	1,351	1,291	1,266	1,204	1,166	1,202	1,292	1,298	1,304	1,424	1,524	1,430
Intermediate	431	452	468	462	401	430	413	390	389	379	439	478	452	522	516	508
Inadequate	1,219	1,294	1,161	1,111	1,101	1,141	1,029	1,160	1,214	1,148	1,240	1,211	1,224	1,244	1,220	1,300
No care	288	295	218	216	223	214	242	214	202	191	172	199	181	170	211	178
Unknown	695	657	540	550	593	563	760	635	631	719	601	608	596	557	699	711
Maternal smoking																
Smoking	2,744	2,630	2,611	2,555	2,329	2,453	2,268	2,313	2,486	2,462	2,481	2,406	2,392	2,474	2,402	2,365
Not smoking	5,952	6,231	6,220	6,549	6,555	6,597	6,851	7,046	7,477	7,815	8,100	8,333	8,399	8,888	9,217	9,553
Unknown	74	59	53	83	67	66	49	51	45	45	59	39	33	27	40	30

<sup>&</sup>lt;sup>1</sup>Based on APNCU index (Kotelchuck, M., Am J Public Health 1994;84:1414-1420).

Table C-2. Number of prterm births by selected characteristics of mother and infant among whites: Indiana, 1990-2005

Characteristics	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Total	6,838	7,062	7,035	7,352	7,243	7,416	7,403	7,661	8,157	8,473	8,711	8,897	8,941	9,436	9,633	9,867
Plurality																
Single births	6,031	6,095	6,229	6,368	6,327	6,385	6,341	6,526	6,960	7,030	7,311	7,413	7,410	7,776	7,892	8,183
Multiple births	807	967	806	984	916	1,031	1,062	1,135	1,197	1,443	1,400	1,484	1,531	1,660	1,741	1,684
Method of delivery																
Cesarean	2,047	2,135	2,079	2,249	2,163	2,266	2,299	2,313	2,450	2,677	2,882	3,138	3,284	3,588	3,872	4,118
Not cesarean	4,627	4,895	4,935	5,072	5,058	5,131	5,079	5,313	5,685	5,759	5,786	5,742	5,647	5,837	5,755	5,738
Birth weight (grams)																
<2,500	2,616	2,748	2,693	2,912	2,829	3,026	3,092	3,184	3,340	3,427	3,399	3,434	3,415	3,652	3,749	3,925
<1,500	686	726	678	826	736	780	842	813	857	900	880	879	887	873	911	944
1,500-2,499	1,930	2,022	2,015	2,086	2,093	2,246	2,250	2,371	2,483	2,527	2,519	2,555	2,528	2,779	2,838	2,981
>=2,500	4,199	4,299	4,316	4,430	4,385	4,335	4,214	4,378	4,739	4,972	5,215	5,356	5,449	5,688	5,787	5,844
Gestational age (weeks)																
<37																
<32																
32-36																
>=37						•••										
Age of mother (years)																
<20	1,163	1,139	1,090	1,123	1,154	1,172	1,159	1,114	1,182	1,122	1,139	1,048	1,011	988	1,081	1,138
<18	441	425	424	411	454	479	427	434	442	379	393	347	327	333	325	340
18-19	722	714	666	712	700	693	732	680	740	743	746	701	684	655	756	798
>=20	5,672	5,921	5,942	6,228	6,081	6,243	6,244	6,546	6,975	7,350	7,571	7,848	7,930	8,445	8,542	8,729
20-24	2,004	2,117	2,115	2,130	2,086	2,119	1,963	2,028	2,167	2,281	2,356	2,470	2,554	2,651	2,606	2,673
25-29	1,989	1,954	1,894	2,042	1,865	1,945	1,947	2,142	2,342	2,332	2,420	2,442	2,380	2,576	2,645	2,749
30-34	1,205	1,288	1,302	1,460	1,438	1,407	1,564	1,574	1,610	1,733	1,748	1,859	1,897	2,119	2,091	2,087
>=35	474	562	631	596	692	772	770	802	856	1,004	1,047	1,077	1,099	1,099	1,200	1,220
Age / Education (years)																
<20 / <appropriate< td=""><td>352</td><td>348</td><td>348</td><td>314</td><td>290</td><td>313</td><td>337</td><td>321</td><td>354</td><td>332</td><td>328</td><td>344</td><td>353</td><td>329</td><td>332</td><td>356</td></appropriate<>	352	348	348	314	290	313	337	321	354	332	328	344	353	329	332	356
<20 / appropriate	798	776	733	796	850	845	804	782	823	772	795	690	650	653	734	770
>=20 / <12	981	1,004	995	980	851	948	854	1,001	1,089	1,107	1,228	1,284	1,329	1,448	1,458	1,530
>=20 / 12	2,611	2,686	2,671	2,711	2,567	2,492	2,398	2,511	2,532	2,654	2,680	2,744	2,692	2,733	2,771	2,754
>=20 / >12	2,046	2,207	2,259	2,499	2,572	2,709	2,906	2,964	3,283	3,500	3,587	3,771	3,856	4,211	4,241	4,361

Table C-2. Number of prterm births by selected characteristics of mother and infant among whites: Indiana, 1990-2005--Con.

Characteristics	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Education (years)																
<12	1,753	1,759	1,735	1,727	1,576	1,698	1,585	1,731	1,841	1,804	1,918	1,945	1,982	2,097	2,119	2,215
0-8	250	275	313	261	290	297	282	308	350	315	398	439	435	490	513	542
9-11	1,503	1,484	1,422	1,466	1,286	1,401	1,303	1,423	1,491	1,489	1,520	1,506	1,547	1,607	1,606	1,673
=12	2,956	3,019	2,971	3,034	2,937	2,851	2,763	2,840	2,904	3,014	3,055	3,060	2,980	3,018	3,129	3,125
>12	2,082	2,245	2,301	2,540	2,625	2,759	2,951	3,009	3,336	3,548	3,646	3,828	3,918	4,262	4,298	4,431
13-15	1,163	1,250	1,341	1,402	1,446	1,570	1,538	1,624	1,735	1,803	1,845	1,961	1,959	2,111	2,136	2,188
>=16	919	995	960	1,138	1,179	1,189	1,413	1,385	1,601	1,745	1,801	1,867	1,959	2,151	2,162	2,243
Live-birth order																
First	2,944	2,956	2,933	3,052	2,999	3,038	3,050	3,122	3,271	3,196	3,396	3,354	3,242	3,460	3,529	3,649
Second	2,117	2,170	2,225	2,305	2,281	2,344	2,305	2,312	2,563	2,720	2,703	2,734	2,917	2,860	3,030	3,009
Third	1,084	1,179	1,113	1,212	1,238	1,160	1,249	1,330	1,399	1,537	1,571	1,659	1,638	1,858	1,747	1,842
Fourth+	639	703	691	702	658	820	746	833	873	988	1,025	1,141	1,137	1,251	1,322	1,357
	54	54	73	81	67	54	53	64	51	32	16	9	7	7	5	10
Marital status																
Married	4,982	4,983	4,831	5,054	4,906	4,945	4,976	5,189	5,388	5,599	5,786	5,894	5,744	6,054	5,951	5,955
Unmarried	1,847	2,074	2,198	2,298	2,332	2,470	2,422	2,471	2,764	2,873	2,921	3,001	3,191	3,381	3,682	3,906
Prenatal care began																
First trimester	4,976	5,222	5,352	5,709	5,582	5,709	5,765	5,908	6,305	6,734	6,935	7,022	7,059	7,558	7,553	7,813
After first trimester	1,450	1,433	1,380	1,346	1,318	1,380	1,268	1,386	1,498	1,441	1,512	1,588	1,535	1,552	1,604	1,628
Second trimester	1,253	1,251	1,216	1,168	1,150	1,188	1,111	1,183	1,289	1,250	1,313	1,359	1,306	1,329	1,387	1,377
Third trimester	197	182	164	178	168	192	157	203	209	191	199	229	229	223	217	251
No care	138	141	106	104	119	122	121	125	110	111	97	122	105	94	130	105
Unknown	274	266	197	193	224	205	249	242	244	187	167	165	242	232	346	321
Prenatal care index <sup>1</sup>																
Adequate plus	3,877	4,078	4,201	4,587	4,495	4,672	4,652	4,952	5,440	5,770	5,880	5,960	6,028	6,404	6,346	6,659
Adequate	1,230	1,217	1,222	1,198	1,134	1,088	1,070	993	973	1,008	1,075	1,092	1,094	1,182	1,278	1,202
Intermediate	312	342	337	338	317	321	308	300	284	275	330	353	359	409	406	398
Inadequate	814	851	789	744	744	815	728	803	865	803	890	927	901	934	915	964
No care	138	141	106	104	119	122	121	125	110	111	97	122	105	94	130	105
Unknown	467	433	380	381	434	398	524	488	485	506	439	443	454	413	558	539
Maternal smoking																
Smoking	2,246	2,199	2,192	2,141	1,970	2,082	1,916	2,033	2,120	2,122	2,139	2,091	2,057	2,151	2,096	2,061
Not smoking	4,544	4,821	4,802	5,148	5,218	5,282	5,442	5,586	6,008	6,312	6,522	6,771	6,860	7,260	7,505	7,782

<sup>&</sup>lt;sup>1</sup>Based on APNCU index (Kotelchuck, M., Am J Public Health 1994;84:1414-1420).

Table C-3. Number of preterm births by selected characteristics of infant and mother among blacks: Indiana, 1990-2005

Characteristics	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Total	1,795	1,758	1,757	1,733	1,619	1,572	1,630	1,625	1,677	1,688	1,740	1,738	1,702	1,766	1,812	1,858
Plurality																
Single births	1,652	1,647	1,589	1,614	1,477	1,438	1,483	1,470	1,477	1,487	1,532	1,499	1,472	1,545	1,587	1,586
Multiple births	143	111	168	119	142	134	147	155	200	201	208	239	230	221	225	272
Method of delivery																
Cesarean	405	389	425	414	401	364	426	380	419	441	476	590	566	635	698	745
Not cesarean	1,306	1,364	1,330	1,318	1,214	1,205	1,204	1,241	1,256	1,242	1,262	1,148	1,133	1,128	1,113	1,112
Birth weight (grams)																
<2,500	738	724	759	755	715	691	766	757	825	788	796	810	789	819	869	889
<1,500	247	244	274	232	250	221	259	239	260	266	258	269	237	286	277	312
1,500-2,499	491	480	485	523	465	470	507	518	565	522	538	541	552	533	592	577
>=2,500	1,047	1,023	991	973	885	858	834	850	831	878	925	909	892	931	928	956
Gestational age (weeks)																
<37																
<32																
32-36																
>=37	•••			•••												•••
Age of mother (years)																
<20	535	530	551	498	479	415	478	432	445	449	394	372	369	342	358	358
<18	266	263	274	274	249	218	226	227	195	196	163	159	154	134	159	123
18-19	269	267	277	224	230	197	252	205	250	253	231	213	215	208	199	235
>=20	1,257	1,227	1,204	1,235	1,140	1,157	1,151	1,193	1,232	1,237	1,346	1,366	1,333	1,424	1,452	1,500
20-24	594	587	568	562	523	506	467	518	560	540	610	607	582	624	589	638
25-29	364	333	329	343	317	294	321	349	332	340	374	387	414	397	444	407
30-34	212	193	193	232	198	230	216	190	183	208	223	223	219	237	259	293
>=35	87	114	114	98	102	127	147	136	157	149	139	149	118	166	160	162
Age / Education (years)																
<20 / <appropriate< td=""><td>88</td><td>90</td><td>114</td><td>88</td><td>80</td><td>69</td><td>81</td><td>73</td><td>87</td><td>80</td><td>86</td><td>71</td><td>73</td><td>67</td><td>71</td><td>74</td></appropriate<>	88	90	114	88	80	69	81	73	87	80	86	71	73	67	71	74
<20 / appropriate	436	426	430	400	386	333	379	350	355	360	303	296	293	268	284	277
>=20 / <12	267	245	240	262	200	216	214	213	252	228	277	252	299	319	321	306
>=20 / 12	597	573	591	561	532	507	519	517	541	525	564	589	538	542	580	622
>=20 / >12	355	385	362	382	377	404	396	427	419	447	479	516	489	550	533	546

Table C-3. Number of preterm births by selected characteristics of infant and mother among blacks: Indiana, 1990-2005--Con.

Characteristics	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Education (years)																
<12	630	605	628	631	534	515	518	519	548	513	538	501	537	539	557	510
0-8	52	57	64	51	51	40	41	41	39	45	37	30	32	35	44	29
9-11	578	548	564	580	483	475	477	478	509	468	501	471	505	504	513	481
=12	739	705	727	662	648	600	655	622	674	663	677	690	638	641	682	751
>12	377	410	382	400	393	414	416	439	432	466	494	533	517	566	552	564
13-15	314	339	311	309	302	324	335	330	329	376	367	402	387	424	395	423
>=16	63	71	71	91	91	90	81	109	103	90	127	131	130	142	157	141
Live-birth order																
First	652	632	613	574	601	556	570	586	559	555	546	573	564	573	618	583
Second	483	491	509	480	420	401	452	418	437	449	487	481	449	483	459	479
Third	330	334	293	344	304	290	283	288	319	331	335	309	307	336	335	375
Fourth+	312	290	332	320	287	319	311	318	352	347	366	367	381	373	400	419
Marital status																
Married	360	372	320	316	279	285	289	349	317	335	363	385	344	387	398	375
Unmarried	1,434	1,385	1,437	1,417	1,340	1,287	1,341	1,276	1,359	1,353	1,376	1,353	1,357	1,379	1,414	1,482
Prenatal care began																
First trimester	926	847	981	962	938	916	929	930	999	1,018	1,095	1,131	1,110	1,132	1,183	1,165
After first trimester	595	631	589	575	528	498	479	532	531	500	512	469	463	486	483	513
Second trimester	518	526	517	502	458	424	420	453	441	419	435	411	393	413	417	447
Third trimester	77	105	72	73	70	74	59	79	90	81	77	58	70	73	66	66
No care	147	152	111	110	102	92	118	89	91	78	71	72	74	75	78	72
Unknown	127	128	76	86	51	66	104	74	56	92	62	66	55	73	68	108
Prenatal care index <sup>1</sup>																
Adequate plus	683	641	743	731	743	732	733	780	860	818	899	928	932	948	1,010	1,019
Adequate	263	224	259	255	202	180	174	193	171	178	193	197	185	219	209	195
Intermediate	110	105	125	115	78	105	96	84	96	98	104	113	83	97	100	101
Inadequate	384	424	366	359	344	319	290	344	324	326	327	272	301	292	288	315
No care	147	152	111	110	102	92	118	89	91	78	71	72	74	75	78	72
Unknown	208	212	153	163	150	144	219	135	135	190	146	156	127	135	127	156
Maternal smoking																
Smoking	479	413	408	407	345	350	332	262	336	327	327	304	317	309	290	290
Not smoking	1,294	1,328	1,337	1,306	1,262	1,210	1,295	1,354	1,325	1,355	1,405	1,431	1,376	1,456	1,515	1,562

<sup>&</sup>lt;sup>1</sup>Based on APNCU index (Kotelchuck, M., Am J Public Health 1994;84:1414-1420).

Table C-4. Number of preterm births by selected characteristics of infant and mother among non-Hispanic whites: Indiana, 1990-2005

Characteristics	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Total	6,635	6,861	6,795	7,056	6,944	7,124	6,987	7,189	7,607	7,913	8,116	8,124	8,147	8,572	8,709	8,779
Plurality																
Single births	5,848	5,911	6,013	6,105	6,056	6,123	5,973	6,101	6,478	6,542	6,757	6,708	6,672	7,016	7,063	7,192
Multiple births	787	950	782	951	888	1,001	1,014	1,088	1,129	1,371	1,359	1,416	1,475	1,556	1,646	1,587
Method of delivery																
Cesarean	1,982	2,065	2,005	2,150	2,055	2,177	2,169	2,177	2,310	2,516	2,732	2,907	3,038	3,290	3,570	3,730
Not cesarean	4,489	4,765	4,770	4,876	4,867	4,929	4,793	4,978	5,278	5,362	5,343	5,204	5,100	5,272	5,134	5,039
Birth weight (grams)																
<2,500	2,545	2,686	2,614	2,793	2,729	2,928	2,917	3,023	3,126	3,230	3,236	3,187	3,169	3,393	3,442	3,559
<1,500	666	705	657	783	709	757	779	752	802	836	833	799	813	812	824	850
1,500-2,499	1,879	1,981	1,957	2,010	2,020	2,171	2,138	2,271	2,324	2,394	2,403	2,388	2,356	2,581	2,618	2,709
>=2,500	4,067	4,161	4,155	4,253	4,186	4,144	3,974	4,071	4,411	4,615	4,799	4,834	4,908	5,094	5,178	5,131
Gestational age (weeks)																
<37																
<32																
32-36																
>=37																
Age of mother (years)																
<20	1,133	1,100	1,042	1,065	1,084	1,099	1,076	1,014	1,077	1,034	1,034	914	888	852	928	963
<18	433	405	404	393	424	442	394	387	397	349	352	295	279	282	270	274
18-19	700	695	638	672	660	657	682	627	680	685	682	619	609	570	658	689
>=20	5,500	5,759	5,750	5,990	5,854	6,024	5,911	6,174	6,530	6,878	7,081	7,209	7,259	7,717	7,773	7,816
20-24	1,935	2,059	2,045	2,035	1,989	2,021	1,834	1,882	2,014	2,082	2,163	2,206	2,279	2,361	2,340	2,361
25-29	1,939	1,908	1,837	1,974	1,805	1,888	1,848	2,033	2,191	2,213	2,251	2,244	2,174	2,343	2,385	2,444
30-34	1,165	1,249	1,260	1,403	1,389	1,363	1,491	1,497	1,523	1,626	1,680	1,751	1,779	1,989	1,935	1,897
>=35	461	543	608	578	671	752	738	762	802	957	987	1,008	1,027	1,024	1,113	1,114
Age / Education (years)																
<20 / <appropriate< td=""><td>346</td><td>336</td><td>332</td><td>296</td><td>267</td><td>287</td><td>309</td><td>284</td><td>320</td><td>298</td><td>275</td><td>270</td><td>281</td><td>262</td><td>270</td><td>283</td></appropriate<>	346	336	332	296	267	287	309	284	320	298	275	270	281	262	270	283
<20 / appropriate	775	751	701	757	804	799	751	719	752	722	745	633	601	586	649	670
>=20 / <12	936	957	928	915	775	871	739	873	940	904	981	967	970	1,058	1,074	1,043
>=20 / 12	2,541	2,616	2,599	2,625	2,477	2,426	2,282	2,372	2,374	2,515	2,549	2,573	2,519	2,557	2,563	2,520
>=20 / >12	1,993	2,164	2,206	2,413	2,513	2,636	2,807	2,866	3,158	3,390	3,489	3,630	3,720	4,058	4,081	4,182

Table C-4. Number of preterm births by selected characteristics of infant and mother among non-Hispanic whites: Indiana, 1990-2005--Con.

Characteristics	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Education (years)																
<12	1,690	1,687	1,638	1,621	1,448	1,564	1,411	1,525	1,620	1,543	1,587	1,522	1,523	1,602	1,630	1,604
0-8	234	253	279	228	243	253	223	229	253	204	242	237	233	249	256	255
9-11	1,456	1,434	1,359	1,393	1,205	1,311	1,188	1,296	1,367	1,339	1,345	1,285	1,290	1,353	1,374	1,349
=12	2,875	2,938	2,885	2,935	2,829	2,773	2,628	2,682	2,719	2,852	2,909	2,867	2,789	2,816	2,883	2,847
>12	2,028	2,201	2,244	2,451	2,565	2,683	2,849	2,908	3,205	3,435	3,544	3,684	3,779	4,106	4,132	4,247
13-15	1,130	1,215	1,298	1,337	1,405	1,513	1,464	1,564	1,645	1,724	1,780	1,867	1,861	2,017	2,034	2,064
>=16	898	986	946	1,114	1,160	1,170	1,385	1,344	1,560	1,711	1,764	1,817	1,918	2,089	2,098	2,183
Live-birth order																
First	2,859	2,886	2,843	2,932	2,888	2,919	2,882	2,933	3,079	2,985	3,182	3,057	2,969	3,164	3,237	3,285
Second	2,063	2,123	2,162	2,222	2,196	2,263	2,170	2,188	2,403	2,557	2,531	2,521	2,669	2,617	2,752	2,708
Third	1,054	1,135	1,074	1,163	1,176	1,120	1,185	1,239	1,294	1,433	1,464	1,514	1,496	1,674	1,558	1,634
Fourth+	608	664	644	663	620	772	697	767	788	913	928	1,024	1,006	1,110	1,157	1,144
Marital status																
Married	4,859	4,862	4,704	4,891	4,760	4,800	4,750	4,930	5,087	5,304	5,511	5,503	5,367	5,649	5,555	5,493
Unmarried	1,768	1,994	2,086	2,165	2,179	2,323	2,232	2,258	2,516	2,608	2,601	2,619	2,774	2,922	3,154	3,282
Prenatal care began																
First trimester	4,844	5,081	5,194	5,510	5,391	5,529	5,480	5,590	5,947	6,366	6,592	6,587	6,577	7,009	7,000	7,150
After first trimester	1,394	1,384	1,308	1,268	1,238	1,281	1,177	1,255	1,346	1,281	1,314	1,311	1,264	1,291	1,294	1,262
Second trimester	1,205	1,210	1,153	1,100	1,088	1,104	1,038	1,077	1,154	1,123	1,154	1,134	1,083	1,116	1,131	1,078
Third trimester	189	174	155	168	150	177	139	178	192	158	160	177	181	175	163	184
No care	132	134	100	94	104	115	109	114	97	97	74	95	87	77	108	90
Unknown	265	262	193	184	211	199	221	230	217	169	136	131	219	195	307	277
Prenatal care index <sup>1</sup>																
Adequate plus	3,772	3,962	4,067	4,416	4,366	4,536	4,440	4,697	5,139	5,461	5,629	5,597	5,631	5,941	5,904	6,076
Adequate	1,193	1,190	1,198	1,161	1,078	1,035	1,005	939	923	934	988	991	1,000	1,082	1,147	1,065
Intermediate	305	328	320	320	296	305	290	270	253	246	288	314	305	362	354	335
Inadequate	782	823	741	698	695	750	667	716	763	715	761	751	721	755	711	753
No care	132	134	100	94	104	115	109	114	97	97	74	95	87	77	108	90
Unknown	451	424	369	367	405	383	476	453	432	460	376	376	403	355	485	460
Maternal smoking																
Smoking	2,216	2,156	2,157	2,100	1,931	2,054	1,863	1,978	2,060	2,080	2,102	2,042	2,005	2,107	2,039	2,005
Not smoking	4,375	4,664	4,600	4,894	4,960	5,019	5,082	5,169	5,521	5,797	5,965	6,048	6,120	6,440	6,638	6,750

<sup>&</sup>lt;sup>1</sup>Based on APNCU index (Kotelchuck, M., Am J Public Health 1994;84:1414-1420).

Table C-5. Number of preterm births by selected characteristics of infant and mother among non-Hispanic blacks: Indiana, 1990-2005

Characteristics	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Total	1,786	1,747	1,752	1,728	1,616	1,564	1,626	1,622	1,672	1,677	1,729	1,731	1,698	1,758	1,807	1,844
Plurality																
Single births	1,643	1,638	1,584	1,609	1,474	1,432	1,479	1,467	1,472	1,476	1,521	1,492	1,468	1,537	1,582	1,574
Multiple births	143	109	168	119	142	132	147	155	200	201	208	239	230	221	225	270
Method of delivery																
Cesarean	401	386	423	413	400	362	425	379	418	437	472	588	566	634	695	740
Not cesarean	1,301	1,356	1,327	1,314	1,212	1,199	1,201	1,239	1,252	1,235	1,255	1,143	1,129	1,121	1,111	1,103
Birth weight (grams)																
<2,500	734	719	758	753	713	687	763	756	823	785	794	808	788	817	867	884
<1,500	245	244	273	232	250	218	258	239	260	264	257	269	236	286	276	311
1,500-2,499	489	475	485	521	463	469	505	517	563	521	537	539	552	531	591	573
>=2,500	1,042	1,017	987	970	884	854	833	848	829	870	916	905	889	925	925	947
Gestational age (weeks)																
<37																
<32																
32-36																
>=37							•••	•••			•••					•••
Age of mother (years)																
<20	532	525	549	498	477	415	477	432	444	446	393	370	369	341	358	355
<18	263	260	274	274	247	218	226	227	194	194	163	159	154	134	159	121
18-19	269	265	275	224	230	197	251	205	250	252	230	211	215	207	199	234
>=20	1,251	1,221	1,201	1,230	1,139	1,149	1,148	1,190	1,228	1,229	1,336	1,361	1,329	1,417	1,447	1,489
20-24	592	583	568	560	522	505	466	517	560	536	608	605	581	620	588	632
25-29	362	332	327	340	317	292	321	349	330	338	369	385	412	395	441	405
30-34	210	193	193	232	198	228	215	188	183	206	222	222	219	236	258	292
>=35	87	113	113	98	102	124	146	136	155	149	137	149	117	166	160	160
Age / Education (years)																
<20 / <appropriate< td=""><td>87</td><td>89</td><td>113</td><td>88</td><td>80</td><td>69</td><td>81</td><td>73</td><td>87</td><td>78</td><td>86</td><td>70</td><td>73</td><td>66</td><td>71</td><td>71</td></appropriate<>	87	89	113	88	80	69	81	73	87	78	86	70	73	66	71	71
<20 / appropriate	435	422	429	400	384	333	378	350	354	359	302	295	293	268	284	277
>=20 / <12	266	244	240	262	199	216	213	211	252	228	275	252	297	317	321	306
>=20 / 12	594	570	591	558	532	505	518	516	541	523	562	587	536	540	579	619
>=20 / >12	355	384	361	380	377	400	395	427	415	442	473	513	489	547	529	538

Table C-5. Number of preterm births by selected characteristics of infant and mother among non-Hispanic blacks: Indiana, 1990-2005--Con.

Characteristics	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Education (years)																
<12	627	600	627	631	531	515	517	517	547	510	536	500	535	536	557	507
0-8	51	57	64	51	50	40	41	40	39	44	36	30	31	33	44	28
9-11	576	543	563	580	481	475	476	477	508	466	500	470	504	503	513	479
=12	736	701	726	659	648	598	653	621	674	661	674	687	636	639	681	748
>12	377	409	381	398	393	410	415	439	428	461	488	530	517	563	548	556
13-15	314	339	310	307	302	322	334	330	326	374	365	401	387	422	391	416
>=16	63	70	71	91	91	88	81	109	102	87	123	129	130	141	157	140
Live-birth order																
First	651	629	611	572	599	555	568	586	556	550	544	568	563	571	617	579
Second	478	487	509	479	420	398	452	417	437	446	481	481	448	480	458	474
Third	330	332	292	343	303	288	283	286	317	330	334	308	307	335	334	372
Fourth+	311	289	331	319	287	318	309	318	352	345	364	366	379	371	398	417
Marital status																
Married	359	368	318	315	279	280	287	348	315	330	358	381	343	384	396	374
Unmarried	1,426	1,378	1,434	1,413	1,337	1,284	1,339	1,274	1,356	1,347	1,370	1,350	1,354	1,374	1,411	1,469
Prenatal care began																
First trimester	924	840	979	959	936	910	926	929	997	1,011	1,088	1,126	1,108	1,125	1,179	1,155
After first trimester	590	627	587	573	527	497	479	530	529	496	509	468	461	485	482	512
Second trimester	514	522	515	500	457	423	420	451	440	415	432	410	391	412	417	446
Third trimester	76	105	72	73	70	74	59	79	89	81	77	58	70	73	65	66
No care	147	152	111	110	102	92	117	89	91	78	71	72	74	75	78	72
Unknown	125	128	75	86	51	65	104	74	55	92	61	65	55	73	68	105
Prenatal care index <sup>1</sup>																
Adequate plus	679	634	742	729	742	728	732	778	858	812	892	925	930	941	1,007	1,012
Adequate	263	224	258	254	202	178	172	193	171	176	192	195	185	219	209	193
Intermediate	110	104	125	115	77	105	96	84	96	98	102	113	83	97	100	99
Inadequate	382	422	365	357	343	318	290	343	323	323	327	272	299	292	286	315
No care	147	152	111	110	102	92	117	89	91	78	71	72	74	75	78	72
Unknown	205	211	151	163	150	143	219	135	133	190	145	154	127	134	127	153
Maternal smoking																
Smoking	477	413	408	403	345	350	332	262	334	326	327	301	315	309	289	288
Not smoking	1,289	1,318	1,333	1,305	1,259	1,203	1,291	1,351	1,322	1,345	1,394	1,427	1,374	1,448	1,511	1,550

<sup>&</sup>lt;sup>1</sup>Based on APNCU index (Kotelchuck, M., Am J Public Health 1994;84:1414-1420).

Table C-6. Number of preterm births by selected characteristics of infant and mother among Hispanics: Indiana, 1990-2005

Characteristics	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Total	221	202	241	280	269	291	335	394	451	516	588	745	760	843	898	1,072
Plurality																
Single births	200	189	217	249	249	261	292	362	402	458	549	678	708	747	808	977
Multiple births	21	13	24	31	20	30	43	32	49	58	39	67	52	96	90	95
Method of delivery																
Cesarean	65	67	77	93	93	90	102	113	114	139	153	224	235	290	296	386
Not cesarean	155	134	164	186	176	200	233	280	334	375	433	517	524	552	601	685
Birth weight (grams)																
<2,500	70	63	77	112	91	97	132	131	173	177	163	238	235	252	298	360
<1,500	18	19	21	39	25	21	48	43	44	61	49	78	74	59	88	95
1,500-2,499	52	44	56	73	66	76	84	88	129	116	114	160	161	193	210	265
>=2,500	151	138	164	168	177	191	202	259	270	333	410	502	518	581	592	703
Gestational age (weeks)																
<37																
<32																
32-36																
>=37																
Age of mother (years)																
<20	39	42	47	56	69	72	75	87	97	87	105	127	116	136	144	168
<18	11	21	18	16	30	37	35	41	43	29	42	48	45	50	52	67
18-19	28	21	29	40	39	35	40	46	54	58	63	79	71	86	92	101
>=20	181	160	194	224	198	219	260	307	354	429	483	618	644	707	752	904
20-24	71	60	70	93	84	102	108	132	120	181	188	251	267	281	252	307
25-29	51	45	55	60	57	54	66	89	125	111	167	195	197	225	258	302
30-34	45	36	40	53	39	42	59	58	64	99	66	104	112	126	155	189
>=35	14	19	29	18	18	21	27	28	45	38	62	68	68	75	87	106
Age / Education (years)																
<20 / <appropriate< td=""><td>9</td><td>12</td><td>15</td><td>16</td><td>21</td><td>26</td><td>25</td><td>33</td><td>33</td><td>37</td><td>52</td><td>70</td><td>71</td><td>67</td><td>58</td><td>72</td></appropriate<>	9	12	15	16	21	26	25	33	33	37	52	70	71	67	58	72
<20 / appropriate	29	28	32	40	47	45	49	54	64	46	51	54	43	67	80	94
>=20 / <12	44	43	69	63	76	75	108	123	142	197	248	309	353	382	381	487
>=20 / 12	80	71	71	76	76	66	78	109	112	120	124	160	160	170	200	222
>=20 / 12	00	, ,	, ,	, ,	, ,		, 0	100	112	120	127	100	100	170	200	

Table C-6. Number of preterm births by selected characteristics of infant and mother among Hispanics: Indiana, 1990-2005--Con.

Characteristics	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Education (years)																
<12	68	69	98	103	127	132	165	193	212	257	332	408	450	486	480	609
0-8	19	20	34	31	48	44	61	79	93	111	157	200	201	241	259	289
9-11	49	49	64	72	79	88	104	114	119	146	175	208	249	245	221	320
=12	94	84	85	89	94	77	93	124	134	140	140	181	174	197	235	261
>12	56	45	58	88	45	77	73	70	94	94	98	143	131	149	160	186
13-15	35	35	45	64	33	59	55	46	70	63	59	92	91	90	100	128
>=16	21	10	13	24	12	18	18	24	24	31	39	51	40	59	60	58
Live-birth order																
First	96	71	89	116	104	118	132	157	159	195	214	285	262	290	277	354
Second	61	50	63	78	74	84	105	102	123	142	169	204	235	238	270	294
Third	32	42	39	45	52	39	54	75	92	96	104	140	136	178	184	207
Fourth+	32	38	49	40	36	46	44	58	69	75	96	115	127	137	167	215
Marital status																
Married	135	125	131	150	119	144	172	197	222	253	266	381	360	391	386	450
Unmarried	86	77	110	130	150	147	163	197	228	263	322	364	400	452	512	620
Prenatal care began																
First trimester	140	143	158	186	167	178	217	248	273	326	335	420	455	529	535	652
After first trimester	64	49	72	77	74	100	85	123	142	157	197	267	266	259	303	358
Second trimester	56	41	64	66	57	85	69	99	124	125	159	219	218	211	248	295
Third trimester	8	8	8	11	17	15	16	24	18	32	38	48	48	48	55	63
No care	7	7	6	10	15	7	13	11	13	14	23	26	17	17	22	15
Unknown	10	3	5	7	13	6	20	12	23	19	33	32	22	38	38	47
Prenatal care index <sup>1</sup>																
Adequate plus	107	115	138	160	108	134	152	198	221	265	244	349	369	444	423	568
Adequate	41	29	24	35	51	54	56	44	43	73	87	102	94	98	125	137
Intermediate	8	15	18	16	19	15	16	28	28	28	43	39	52	47	52	64
Inadequate	38	28	45	48	47	66	59	78	98	92	129	165	178	177	204	207
No care	7	7	6	10	15	7	13	11	13	14	23	26	17	17	22	15
Unknown	20	8	10	11	29	15	39	35	48	44	62	64	50	60	72	81
Maternal smoking																
Smoking	29	37	31	36	32	24	32	38	40	25	29	35	40	35	40	43
Not smoking	191	164	207	244	236	266	303	356	408	490	558	709	718	808	858	1029

<sup>&</sup>lt;sup>1</sup>Based on APNCU index (Kotelchuck, M., Am J Public Health 1994;84:1414-1420).

### **Technical Notes**

#### Computation of percentages

In computation of percentages (also referred to as prevalence or rate) and percent distributions, births for which a particular characteristic is unknown were subtracted from the figures for total births that were used as denominators before percentages and percent distributions were computed.

### Random variation and stability of rates

In this report, the number of births in specified categories represents complete counts in that category for the State of Indiana. Therefore, percentages or rates are not subject to sampling error. However, when rates are compared over time, between areas, or among various subgroups, the number of events and the corresponding rates are subject to random variation. That is, the rate that actually occurred may be considered as one of a large number of possible different outcomes (rates) that could have arisen under the same circumstances. As a result, rates in a given population may tend to fluctuate from year to year even when the health of that population is unchanged. The simplest method for addressing the issue of random variation is the computation of 95 percent confidence interval. This interval indicates that it has 95 percent probability of including the true rate.

Random variation in rates based on a relatively small number of events tends to be larger than that for rates based on more frequently occurring events. To deal with the stability problem in presenting low birth weight and preterm birth rates by race and Hispanic origin and by various maternal characteristics, three years of data are combined to increase the number of events, reduce the effect of random variation, and improve the reliability of rates. Rates based on less than 20 births in the numerator are considered unstable and are not reported.

### Significance testing of differences between two percentages

When testing the difference between two percentages, both percentages must meet the following conditions:

$$B_1 \ x \ p_1 >= 5$$
 and  $B_1 \ x \ q_1 >= 5$   
 $B_2 \ x \ p_2 >= 5$  and  $B_2 \ x \ q_2 >= 5$ 

where.

 $B_1$  = number of births in the denominator of the first percent

 $P_1$  = the first percent divided by 100

 $q_1 = 1 - p_1$ 

 $B_2$  = number of births in the denominator of the second percent

 $P_2$  = the first percent divided by 100

 $q_2 = 1 - p_2$ 

When both percentages meet these conditions, then the difference between the two percentages is considered statistically significant if the resulting Z-score is greater than or equal to 1.96. The formula for the Z-score is:

$$Z = (p_1 - p_2) / SQRT [(p*q/B_1) + (p*q/B_2)]$$

Where,

p = the pooled percent

q = 1 - p

SQRT= denotes the square root of the expression in brackets (represents the standard error for the difference between two percentages)

and the pooled percent is:

$$p = (n_1 + n_2) / (B_1 + B_2)$$

where,

 $n_1$  = number of births with the characteristic in the numerator of the first percent  $n_2$  = number of births with the characteristic in the numerator of the second percent

### Statistical testing for the relative prevalence

The relative prevalence of an outcome, such as low birth weight or preterm birth, among one group compared to the other, such as among blacks compared to whites, are calculated as follows:

$$RP=P_1/p_2$$

Where,

 $P_1=a/(a+b)$  (prevalence in group 1)

 $P_2=c/(c+d)$  (prevalence in group 2)

a=number of births with the selected characteristic in group1

b=number of births without the selected characteristic group1

c=number of births with the selected characteristic in group2

b=number of births without the selected characteristic group2

The formula for the 95-percent confidence intervals for the relative prevalence (28) is as follows:

[In 
$$(P_1/p_2) \pm 1.96(SQRT(1/a*b/n_1)+(1/c*d/n_2))$$
] CI=e

Where,

In  $(P_1/p_2)$  is the natural logarithm of the relative prevalence e denoted that the computed confidence limits are exponentiated  $n_1$ =a+b  $n_2$ =c+d

#### Birth-weight and gestational age edits

Birth-weight and gestational age edits were performed according to National Center for Health Statistics (NCHS) guidelines (29). Birth weights below 227 grams and above 8,650 grams were considered as unknown. Birth weights within the acceptable range of 227 to 8,650 grams were checked for consistency with gestational age. Gestational age in completed weeks was calculated from the date of last normal menstrual period to the date of birth. The clinical estimate was used for less than three percent of the records in which the date of last menses was missing or when the computed gestational age was either out of the acceptable range of 17 to 47 weeks or inconsistent with the birth weight.

### Age-appropriate education of mother

In this report, mother's educational attainment is reported both as number of years of education regardless of mother's age (as reported on the birth certificate) and as an age-appropriate education for mothers under 20 years of age. A mother's education was considered inadequate or less than appropriate-for-age if she was over 18 years of age and had not completed high school or if she was younger and had less than appropriate number of years of education for her age. For example, for a 17-year-old mother, at least 11 years of education was needed to be considered age-appropriate. For teenage mothers, the age-appropriate education is presented to correct for the effect of mother's age on years of education.

#### Prenatal care utilization

In addition to initiation of the prenatal care as a measure, different prenatal care indices have been developed as alternative measures based on the timing of the prenatal care, the number of prenatal visits, and the gestational age of the infant at birth. In this report, the Kotelchuck Adequacy of Prenatal Care Utilization (APNCU) Index is used (30). This Index includes the adequate plus care category for those women with unexpectedly large number of prenatal visits given the gestational age at delivery and the month prenatal care began.

The Kotelchuck Index does not assess the quality of the prenatal care, simply its utilization. The prenatal care utilization is considered inadequate if care is initiated after the fourth month of pregnancy regardless of the number of visits. Once prenatal care is initiated during the first four months of pregnancy, then the index is classified into inadequate, intermediate, adequate, or adequate plus if the ratio of actual-to-expected number of visits is less than 50 percent, 50-79 percent, 80-109 percent, or 110 percent and more, respectively. The adequate-plus category mainly includes women who are considered at high risk and receive extra prenatal services and have a disproportionately high share of low birth weight infants compared to other categories (31). The prenatal care index is considered unknown for mothers who have missing information or inconsistent values on the initiation of prenatal care, the number of visits, or gestational age, and for mothers with duration of gestation below 20 weeks and above 44 weeks (considered unacceptable values according to Kotelchuck Index).